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VOLUME XVI.

# The Physician and Surgeon

## A JOURNAL OF THE MEDICAL SCIENCES.

CONDUCTED BY
FREDERICK WHARTON MANN, M. D.,
AND
JOHN WILLIAM KEATING, M. D.

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# AUTHORS.

PAGE
BELL, SAMUEL, . . . . . . . . 200, 536
BIDDLE, ANDREW P., . . . . . . . 440
BLOCQ, PAUL, . . . . . . . . 549
BOISE, EUGENE, . . . . . . . . 533
BONNING, CARL, . . . . . . . . 481
BRYAN, ALONZO, . . . . . . . . 197
CAMPBELL, DON M., . . . . . . . . 437
CHRISTIAN, E. P., . . . . . . . . 208
DODGE, J. R., . . . . . . . . 391
DOUGLAS, CHARLES, . . . . . . . 54
ETHERIDGE, J. H., . . . . . . . . 347
FORREST, G. WILSON, . . . . . . . 546
GIBBES, HENEAGE, . . . . . . . 66, 105, 241
HARVEY, LUTHER S., . . . . . . 385, 500, 553
HASTIE, W. G., . . . . . . . . 97
HAUGHEY, W. H., . . . . . . . . 395
HICKEY, P. M., . . . . 15, 84, 126, 163, 225, 255, 403, 448, 498
HOUGH, FRANK S., . . . . . . . . 488
HUIZINGA, J. G., . . . . . . . . 11
INGLIS, DAVID, . . . . . . . . 101, 392
JOHNSTON, COLLINS H., . . 17, 79, 122, 175, 215, 268, 316, 357, 408
KIEFER, GUY L., . . . . . . . . 1
KREMERS, H., . . . . . . . . 355
MAASS, F., . . . . . . . . 492
MANN, EDWARD C., . . . . . . . . 283
MANTON, W. P., . . . . . . . . 145
McGILLICUDDY, T. J., . . . . . . . 356
METCALF, W. F. . . . . . . . . 155, 530
MINER, S. G., . . . . . . . . 337
NEWMAN, J. BYRON, . . . . . . . 161
NEY, GEORGE S., . . . . . . . . 483
OSTROM, S. C. J., . . . . . . . . 193
OWEN, JOHN S., . . . . . . . . 314
PARKER, DELOS L., . . . . . . . . 446
PARKER, WALTER R., . . . . . . . 341
PETERSON, REUBEN, . . . . . . . 5
POTAIN, PROFESSOR, . . . . . . . 12
ROBBINS, FREDERICK W., . . . . . . . 49, 309
SHERMAN, G. H., . . . . . . . . 289
SIMON, JULES, . . . . . . . . 400
STAMM, M., . . . . . . . . 244
STEINBRECHER, A. H., . . . . . . . 249
TALAMON, C., . . . . . . . . 496
TAPPEY, ERNEST T., . . . . . . . 433
WALKER, F. B., . . . . . . . . 70
WALKER, H. O., . . . . . . . . 70

No.

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Hygiene, a manual of, 517.
Hygiene, text-book of, 569.
Hysterectomy, 40.
Hysterectomy for cancer, 533.
Hysterectomy without clamps or ligatures, 529.

I

Identification of criminals, 205.
Improper treatment of the insane, 135.
Immunity, the nature of, 459.
Increase of drunkenness, 511.
Incurables, a hospital for, 563.
Index catalogue, 425.
Infant feeding, 383.
Infantile diarrhea, 400.
Infantile eczema, 440.
Insane, our, 536.
Insane, the institutional care of the, 208.
Insanity, celiotomy in, 145.
Insanity, prevention of, 366.
Insurance money recovered, 563.
International clinics, 36, 288.
International language, 229.
International medical annual, the, 234.
International medical congress, 90, 184, 281.
Invalids with consumption, modern climatic treatment of, in southern California, 138.
Inversion, sexual, 549.

J

Jefferson medical college, a four years' course at, 34.
Johnston, Doctor Collins H., return of, 462.
Joint disease, tubercular, 572.

K

Kosher meat, 26.

L

Lactation, arrest of, by cocaine, 479.
Landau's gynecological measures, 122.
Laparotomy, after-treatment of, at Prague, 324.
Legal medicine, a system of, 38.
Latent diseased conditions, 203.
Lesson of Trilby, the, 526.
Leipsic, letter, 316, 357, 408.
Long rectal tube, dangers of, 525.

M

Malpractice suits, 278, 330.
Man of war "New York," hotel accommodations on the, 28.
Massage, treatment of fracture by, 431.
Materia medica, 517.
Materia medica and therapeutics, a manual of, 235.
Measels, 92.
Medicine building, a, 130.
Medical bulletins, 238.
Medical chemistry, 378.
Medical diagnosis, a practical treatise on, 191.
Medical fortunes, 136.
Medical jurisprudence of insanity, a treatise on, 36.
Medical libraries, 27.
Medical microscopy, 425.
Medical practice in Ohio, regulation of, 29.
Medical societies, union of, 25.
Medicine, essentials of, 288.
Medicine, Flint's practice of, 469.
Medicine, history of, 505.
Medicine in India, 367.
Menopause, disorders of the, 379.
Menstruation, a new view of, 277.
Mental medicine, 468.
Mercurial ointment, rapid preparation of, 479.
Mercy hospital, Big Rapids, report of for year 1893, 132.
Michigan institutions, legacies to, 369.
Michigan state medical society, 131, 190, 227, 425.
Mineral diet, a, 461.
Minor surgery and bandaging, a manual of, 192.
Mississippi valley medical association, 417.
Microscopical pathology, a course in, 275.
Modern child, primitive instincts, 457.
Monthlies made weeklies, 32.
Montreal public health meeting,. 370
Morphine, a new antidote for, 95.

N

National dispensary, new edition of, 37.
National leper hospital, a, 30.
National quarantine bill, the, 26, 33.
National mineral waters, 417.
Nervous forces perturbed, 97.
New law in France, 34.
New York academy of medicine, 33.
Nuclein therapy, 463.
Nucleins, a clinical study of, 470.
Number of physicians in the United States, 133.
Nurses dictionary, the, 336.

O

Obstetrical cases, one hundred, 395.
Obstetrical lectures, syllabus of, 235.
Obstetrics, 41.
Obstetrics, study of in Dresden, 177.
Ohio state medical society, 280.
Oil of cinnamon, antiseptic properties of, 479.
Oliver Wendell Holmes, 458.
Opium in India, 87.
Organs of phonation, reflex paralysis, 391.

P

Pan-American medical congress, 234.
Pathology, 45.
Pathology in fiction, 459.
Pediatry at the Findal Austalt, 325.
Pelvic abscess and its treatment, 5.
Perfumes, hygienic value of, 478, 527.
Permanganate of potash in morphine poisoning, 278.
Phantom tumor, a case of, 98.
Phantom tumors and hysteria, 101.
Phthisis, eleven vital points concerning, 570.
*Physical* diagnosis, manual of, 36.
*Physician's* cruise around the world, a, 280.
Physics, essentials of, 235.
Physical strain, 576.
Physiology, 44.
Physiology and the death penalty, 88.
Physiology, a text-book of, 96.
Picturesque California, 241.
Placenta previa, 347.
Plague in China, a, 334, 370.
Politics, the doctor in, 488.
Power of the coroner in post-mortems, 460.
Prague letter, 215.
Practical obstetrics, a manual of, 235.
Priapism, an epidemic of, 40.
Prizes, an incentive to competitors for, 563.
Professional reputation vindicated, 90.
Prolonged hyperpyrexial scarlatina, 496.
Prophylaxis of small-pox, 229.
Protective inoculation, 93.
Proteolytic action of papoid, 147.
Psychology and mental diseases, a primer of, 137.
Puerperal eclampsia, a case of, 236.
Puerperal fever in Prussia, 215.
Pure word-blindness, localization of, 44.
Pyosalpinx, method of dealing with, 272.

Q

Quack nurses, 326.
Quintriplets, 134.

R

Resection of the kidney, 544.
Resignation of Dean Obetz, 507.
Revised code, the, 227.
Royal university, professor extraordinary in the, 20.
Ruby capsules, the, 50.

S

Saline intravenous injections, 518.
Science, organization of, 183.
Sea bathing, dangers of, 366.
Selection and race progression, 184.
Sennine, 49.
Sexual inversion, 549.
Sim, the death of Doctor, 562.
Singultus, 446.
Sir Andrew Clark and his fees, 91.
Skin, diseases of the, 335.
Small-pox, 31, 88, 93, 136, 229, 231, 276, 285, 331, 370.
Small-pox in a city hospital, 88.
Small-pox, status of, in Michigan, 331.
Sterilization stamp, a, 91.
Strain, the physical, in high speed, 576.
Strophanthus in dypsomania, 479.
Substernal struma, operation for, 492.
Sugar as an antiseptic, 561.
Suicide, an epidemic of, 416.
Suicide and insanity, 138.
Suicides in France, 31.
Suprarenal capsule, first successful excision of, 322.
Surgery, 37.
Surgery, a manual of modern, 569.
Surgical accidents, 270.
Sympathetic nervous system, 155.
Symphysiotomy, the operation of, 222.
Syphilis, treatment of, 249.
Syrup of hypophosphites, 98.

T

Teaching, clinical, on the coast, 561.
Temperaments, the, 382.
Terraline, some experiments with, 242.
Therapeutics, 41.
Thypoid, a new treatment of, 228.
Tincture of iron, how to administer, 98.
Tongaline in recurring grippe, 50.
Transfusion and heroism, 130.

The trip to San Francisco, 241.
Tubercular joint disease, 572.
Tuberculin, diagnostic value of, in tuberculosis, 574.
Tuberculosis, a prize for an essay on, 330.
Tuberculosis, compulsory notification of, 131.
Tuberculosis, does tuberculin possess any diagnostic value in, 574.
Tuberculosis, petroleum and hypophosphites in, 447.
Tuberculosis, prevention of, 368.
Tuberculosis in cattle, 286.
Tubal pregnancy, etiology of, 126.
Tubercular meningitis, 353.
Tuft's college medical school, 32.
Typhoid fever, 288, 546.
Tyrotoxicon poisoning, 385.

U

Universal medical sciences, the annual of, 518.
University of Michigan, 28, 29, 509.
University of Maryland, 35.
University of Minnesota, 31.
Urethral stricture, cause and treatment of, 309.
Urethritis and cystitis, 49.
Uric acid, excessive secretion of, 38.
Urinalysis and urinary diagnosis, practical, 570.
Urinary diagnosis, practical urinalysis and, 570.
Uterine myomata, 323.
Uterus, backward displacements of, 573.

V

Vaccination and small-pox, 276.
Vaginal capsules, Anderson's, 147.
Vaginal hysterectomy, 270.
Vaginal hysterectomy for malignant disease, 79.
Victoria hospital, opening of, 33.
Visiting list, the physician's, 569.

W

What sort of doctors did they have, 504.
Why fruit skins should not be eaten, 528.
Wins a wager, death, 95.
Woman and child's hospital, Syracuse, fire at, 35.
Work and worry, 240.

Y

Yale, senior class at, 34.
Year-book of treatment for 1894, 235.
Young mothers, children of, 329.
Young's orthopedic surgery, 468.

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# The Physician and Surgeon

A JOURNAL OF THE MEDICAL SCIENCES.

VOLUME XVI. JANUARY, 1894. NUMBER I.

## ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### THE USES AND DANGERS OF ANESTHETICS.

By GUY L. KIEFER, A. M., M. D., DETROIT, MICHIGAN.
INSTRUCTOR IN HYGIENE IN THE DETROIT COLLEGE OF MEDICINE.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

IN a recent number of The Physician and Surgeon there appeared an editorial giving a few practical hints on "How to write a paper to read before the profession." The instructions were taken from DOCTOR NORTHRUP, of the New York Academy of Medicine, and are recommended by the editor as admirable in every way. "First," says DOCTOR NORTHRUP, "pass over Galen and Hippocrates,—they have been dead for some time, and their opinions are obsolete. Second, scratch out the formal introduction and begin where the subject matter really begins." I intend to follow the first instruction to the letter, and the second is also worthy of adoption, but I trust you will allow me just one word before I begin with the subject proper.

The question that I bring before you for discussion this evening is one that has always been of great interest to me, but unfortunately does not occupy as prominent a place in medical literature as its importance merits. A short time ago I found myself complaining to our worthy secretary of this fact and he made what seemed to me a very practical and profitable suggestion. "Let me put you on for a paper on that subject," he said, "and in that way you will get the opinions of our best men." So much for my appearance before you this evening.

"A death from chloroform," "Died on the operating table," "A death from the influence of ether,"—these and similar headlines are seen from time to time in our medical journals and even in the daily newspapers. That the statements are true cannot be denied, but that does not make them the less sad. A short time ago when COLONEL SHEPARD, of New York, died from ether, the whole country was in excitement about it. To be sure it is more comfortable to be

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* Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

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of $Co_2$, and $H_2O$ and a definite yield of heat for each gramme oxidized. The consumption of ether in this way is very rapid, and this aids, it is true, in shutting out the oxygen. The production of heat irritates the centripetal nerve-endings in the pulmonary organs, thus explaining why the circulation and respiration are so well sustained during the primary stage of the ether anesthesia.

Chloroform acts in the same general way that ether does, by displacing the oxygen from the lungs. Chloroform, however, is a much heavier liquid than ether, its molecular weight being 119.4, while that of ether is 74; again, chloroform is much less volatile. Consequently chloroform is easily and rapidly drawn into the air-passages, and is not easily displaced, and this explains why very little can be administered at a time, and shows how a little too much of this anesthetic easily asphyxiates the patient and causes failure almost at once of the heart and respiratory function. The fact that chloroform cannot be oxidized in the epithelial cells lining the respiratory passages and made to yield heat and consequently stimulation of the centripetal nerve-endings of the pulmonary organs, explains to us why the failure of the heart and lungs when induced by the administration of chloroform instead of ether, comes suddenly.

On the other hand, chloroform has the advantage over ether in the fact that it can be made to produce partial or complete oxidation *quickly*, without primary reflex irritation and excitement, and this can be accomplished by the *least possible* shutting out of oxygen from the blood. Consequently, if scientifically administered to normal individuals, chloroform is less damaging to the chemico-physiological processes of the human organism than is ether. But as an anesthetic is generally administered to an individual whose system is not in an entirely normal state, we must conclude from this brief discussion of the physiological action of ether and chloroform, that neither of the two drugs can be administered with impunity.

It is generally supposed that ether is less dangerous. Are we justified in drawing that conclusion? Certainly not from the physiological action of the drugs. If we look at the statistics, we will find a greater number of deaths ascribed to chloroform than to ether. But what are we to conclude from that? Not that ether is less dangerous, because, in the first place, the total number of cases of ether narcosis is smaller than that of chloroform narcosis; secondly, the deaths that occur from ether a day or two after the anesthesia as a result of the impairment of the renal glands are not taken into account; and thirdly, as is the case with all statistics, the conditions and circumstances under which the anesthetics were administered are not given, and consequently a comparison is unjust.

But let us look for a moment at the statistics. At the German Surgical Congress held at Berlin, April, 1893, Dr. Gurlt, of Berlin, made the following report on the statistics of anesthesia: "Fifty-eight reports have come in during the last year, mainly from Germany and neighboring countries. The sum total of the narcoses in these reports were 57,541. But as we have to deal principally with narcosis for surgical purposes, we must subtract 11,464 cases performed by dentists with nitrous dioxide. There remain 46,077 surgical narcoses with 12 deaths. Adding the cases communicated in the first two years of tabulation, we have 157,815 narcoses with 53 deaths, that is, one death in 2,977. The mortality is distributed among the different narcotics as follows: 46 deaths in 130,609 chloroform narcoses, that is, one in 2,839. Among the 14,502 ether narcoses not a single death occurred. The combined chloroform-ether narcosis comprised 4,118 cases with one death. Narcosis with **Billroth**'s mixture (chloroform-ether-alcohol) numbered 3,450 cases without a single death. The bromide of ethyl narcosis, 4,538 cases, resulted in one death."

Let us take the drug that according to these extensive statistics makes the worst showing, chloroform, and we find one death in 2,839 cases. When we bear in mind the fact that the anesthetic is administered by anyone who happens to be present at the operation, in clinics generally by the youngest physician or by a student, in private practice very often by a nurse or even a layman,—can we consider one death in 2,839 cases a bad result? What kind of statistics should we have, did we allow every layman, every man, woman, and I was about to say, child, to administer morphine hypodermically and in doses to suit their own judgment? What would be the result if we should allow the laity to administer any one of a large number of drugs? Does the fact that anesthetics are given by inhalation excuse carelessness in the use of them?

Our question has then become, not which drug is to be used as an anesthetic, but rather how is the anesthetic to be administered? In order to reduce the number of deaths from chloroform and ether, we must insist on having a person give the anesthetic who is as familiar with, and consequently as cautious of, the dangers that carelessness in its use may bring about, as is the surgeon of the disastrous results brought about by the unskillful use of the knife. A surgeon would not allow his patient's brother to operate for him, nor an obstetrician allow his patient's husband to apply the forceps, nor would a physician allow his patient's friend to prescribe for him; why, then, should the brother, husband or friend, as the case may be, be allowed to give the anesthetic? The giving of an anesthetic should be considered as much part of the operation as the skillful management of the knife, for is not the responsibility as great? A death from chloroform or ether is more disastrous to the surgeon than a death in consequence of the operation.

There are a number of methods of giving an anesthetic, but all of them have the same general points in common. **Dr. Rydygier**, of Krakau, in a well written article on "How to give chloroform,"* reports 2,500 cases of chloroform narcosis without a single death. This good record he ascribes to the administration of the narcotic as practiced at his clinic, "continuously, but in drop doses." While this method of narcotizing may be very commendable, I think it is evident from the very article referred to that this is only one of many causes for his good results. In his clinic each patient is thoroughly examined previous to an operation, with a view to finding any contraindications that may exist to the use of chloroform. This question having been settled, the patient is prepared for the anesthesia by having his diet regulated and restricted and his bowels properly attended to for a day or two before the time set for the operation. When the time has arrived to give the anesthetic, it is always administered by two senior students under the supervision of one of the assistants of the clinic. One of the students watches the pupil and respiration of the patient, while the other watches only the pulse. The students have been thoroughly instructed in regard to the accidents that may arise and also in the measures to resort to in case of such accidents. They have been taught to watch carefully the pupil, respiration and pulse, and to give the narcotic in drop doses. This is the method that is practiced, with some variations perhaps, in clinics and hospitals in general, and the one that should be carried out as far as is practicable in private practice. If the profession in general will bear in mind these general instructions, see that no contraindication exists to the use of an anesthetic, give the anesthetic in small doses and give it all, instead of pouring on great quantities to get the patient anesthetized quickly, and at the same time watch the patient carefully, I think the number of deaths from chloroform will be reduced to a minimum in a very short time. Let no physician attempt to administer an anesthetic and at the same time operate. It requires the entire attention of one person, and a skilled one at that, to take care of the anesthetic.

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* *Sammlung klinischer Vorträge*, Number LXIX.

When all of these precautions are carried out to the letter, accidents may sometimes occur, and it is our duty to be prepared for the same. "No one should attempt anesthetization," says DOCTOR JOSEPH B. COOKE, of New York,† "unless he is thoroughly familiar with every known method of resuscitation in case an accident should occur, and it is of equal importance that he should have at hand, and ready for instant use, all the instruments and drugs that might in any emergency be needed. A table within easy reach should be supplied with whisky, tincture of strophanthus, tincture of digitalis, solution of strychnine sulphate (one-fiftieth of a grain to one scruple), and a hypodermic syringe *filled* with whisky, together with a mouth-gag, tongue forceps and the necessary instruments for the performance of tracheotomy."

Is not the surgeon prepared for accidents in his operation? Does he not have at hand ligatures and catch-forceps in case of severe hemorrhage? Again is not the obstetrician prepared for similar accidents, and so with all operators? Why, then, should not the anesthetizer take the same precautions?

There is room for a great many reforms in the practice of medicine, but it seems to me reform in this respect is very necessary and can be very easily brought about. There are very few cases in which time will not allow the attending physician or surgeon to send for some one to take care of the anesthetic. It is certainly our duty to reduce the mortality from chloroform and ether as from every other known cause, and this is the easiest means to obtain the end. Let no one rely too much on himself, as there are not very many of us who can attend to more than one thing at a time and attend to it properly.

† *Philadelphia Medical News*, Volume LXII, Number XIV, page 374.

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# PELVIC ABSCESS AND ITS TREATMENT.*

BY REUBEN PETERSON, M. D., GRAND RAPIDS, MICHIGAN.
GYNECOLOGIST TO SAINT MARK'S HOSPITAL; FELLOW AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

THE subject of pelvic abscess and its treatment is of especial interest and mportance both to the general practitioner and the gynecologist. The former s usually first called to a patient suffering from pelvic inflammation, which nay result in the formation of pus. It is, therefore, highly essential that the family physician should have accurate and distinct ideas concerning the etiology, progress and treatment of purulent collections within the pelvis. His every moment occupied, the busy practitioner has not the time or inclination to carefully sift the evidence brought forward in favor of one or another mode of procedure under certain conditions, and, until the discussion is closed and the final vote taken, he is apt to treat his cases by the most conservative methods, when more radical procedures might be better and safer for his patient. Not that I would for one moment criticise or censure this conservatism, provided that it be not used as a weapon to show how much more careful of the life of his patient its possessor is than he who advocates and practices more radical measures. Truth is what we should all strive after. If a man honestly believe that he can cure his patient better upon the expectant plan, howevermuch I may disagree with him, I honor him for his opinion, and am ready for him to show me wherein I am mistaken. But on the other hand, I desire a similar attitude of mind in him. If it can be proved that radical measures offer the best chance of recovery, then they should be adopted and should not be sneered at and decried by those who have never used them or given them a fair trial.

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* Read before the GRAND RAPIDS ACADEMY OF MEDICINE, November 27, 1893.

Conservatism has its useful place. It has shown up and exposed many a fad from the blue glass craze to the curing of epilepsy by the removal of some irritating point somewhere in the body. It holds in check and shows the folly of those who advocate the removal of every appendix, where the diagnosis of appendicitis can be made. It has done worlds of good in demonstrating the uselessness of removing normal appendages for the cure of general neurotic conditions. Such conservatism I admire, for it seeks to demonstrate truth, founded upon scientific facts. I am unable, however, to find words expressive enough of my contempt for all those, who, beset by petty jealousies and wrapped up in their own ignorance, impute wrong motives to those of their professional brethren who adopt certain radical procedures for the cure of their patients.

It will not be attempted, in the short time at my disposal, to deal exhaustively with the subject of pelvic abscess. I shall merely deal with a very small portion of the subject and attempt to state in a few words what appears to me to be the rational method of treating a case of this description. The question, I admit, is still *sub judice*, judging from the published articles of some of our leading gynecologists. Is there, however, an established plan of action which can be safely adopted in the majority of cases with the hope of permanently curing our patients? I believe that such a method exists, and I have arrived at this conclusion from a careful study of a considerable number of cases, which I have had during the past three years, together with a perusal of all the literature upon the subject, which was easily obtainable.

In this paper the term pelvic abscess is used in a broad sense, and by it is meant any collection of pus within the pelvis. In the older text-books upon gynecology we were taught that almost any inflammatory mass upon either side of the uterus was due to pelvic cellulitis and that collections of pus in these localities were the results of the breaking down of the cellular tissue thus involved. The etiology, symptoms, and physical characteristics of this disease were fully set forth, and the student given minute directions in regard to the treatment of the condition by means of hot water douches, glycerine tampons, et cetera. This pelvic cellulitis theory was copied from one text-book into another; the leading professors taught it as law and gospel, and it became one of the cherished possessions of the members of the medical profession. And it is still clung to even now, when pelvic cellulitis is shown to be of comparatively rare occurrence.

This confusion arose from neglecting to ascribe enough importance to the part the tubes play in the production of pelvic inflammation. The rapid advances that have been made during the past decade in pelvic and abdominal surgery, have afforded great opportunities for the careful examination of numerous diseased appendages and the study of the parts they play in intrapelvic disease. **Bernutz**, as far back as 1857, in a remarkable description of pathological appendages, called attention to the important rôle played by these organs and the pelvic peritoneum in the production of pelvic inflammation. But his observations were lost sight of and it was not until modern pelvic surgery disclosed the true nature of the inflammation, that it was admitted how accurate and convincing were the descriptions of this observer.

What is it, then, that modern surgery and pathology has demonstrated in regard to pelvic inflammatory troubles? It is:

(1) That pelvic cellulitis is a comparatively rare affection.

(2) That when it occurs it is usually during the puerperal state, the infection being conveyed by means of the lymphatics.

(3) That diffuse inflammation of the pelvis, which has been known under various names, as periuterine inflammation, perimetritis, parametritis and pelvic cellulitis, in the vast majority of cases is nothing more or less than tubal inflammation and its resulting conditions.

(4) That when the pelvic cellular tissue is involved, it is because of its contiguity to the tube or ovary, which is the original seat of the disease.

What lessons, then, shall we learn from a contemplation of the light thrown upon pelvic inflammation by modern pathology? Shall we sit calmly by and see the pus tube growing larger and larger, involving the ovary and the adjacent pelvic peritoneum, forming dense adhesions to the bowels, and wait patiently until the abscess *points* in the vagina, or along Poupart's ligament? Is this good surgery? I think not. What, then, shall be done since the expectant plan is obviously unsurgical and not to be considered? Evidently the only thing to be done is to employ some method to get at the pus and thus the question narrows itself down to the means which should be employed.

The reasons which led us, in the days of the pelvic cellulitis theory, to always endeavor to evacuate the pus through the vagina are apparent. The pus was supposed to be in the cellular tissue and in that alone. This cellular tissue, and consequently the pus, was nearest the vagina, and an incision here at the most dependent portion of the abscess furnished the best drainage. And this method, in some cases, cured the patients, although the cure may have been extended over many weeks and months, much to the annoyance of both patient and surgeon. A cure resulted because a pus tube has a natural tendency, as it enlarges, to become prolapsed into the cul-de-sac and, becoming adherent to rectum and vagina, is easily opened and drained through the latter. The reason this treatment fails in many cases, and why this mode of procedure should be limited to those cases where the patient has been weakened by long continued sceptic absorption, and time is necessary to build up the strength of the patient prior to more radical measures, is because the surgeon is never able to determine beforehand how many pockets of pus he has to deal with. To drain one pocket and leave another higher up in the pelvis is poor surgery. The arguments against the opening of a pelvic abscess through the vagina may be stated as follows:

(1) It is unsurgical, because good surgery is always clean surgery. Opening an abscess through the vagina, leaves behind a dilated, useless tube, oftentimes adherent to the bowels.

(2) There may be two or more pus pockets, only one of which can be got at through the vaginal incision.

(3) The abscess may be situated so high up that there may be danger of wounding a bowel in making the vaginal incision.

(4) From imperfect drainage the opening through the vagina often fails to close and a troublesome fistula results.

(5) The surgeon is unable to ascertain the condition of the other tube and ovary, which may be on the point of producing an abscess on the other side of the pelvis.

The only point in favor of the vaginal incision is one already hinted at; it will enable the surgeon to gain time in the case of a very weak patient, before he proceeds to more radical treatment. And this radical measure is to open the abdomen and enucleate the abscess sac. It is not always an easy procedure, especially in neglected cases. Frequent attacks of inflammation have oftentimes matted together the entire pelvic contents. After the incision is made, the operator usually comes upon the omentum, adherent to the abdominal wall, bowels and appendages. Carefully separating this, he comes upon a mass that oftentimes can hardly be distinguished as the uterus and its appendages. But by persistent effort this mass can be unrolled and, in my experience, is invariably found to be a pus tube with or without an ovarian abscess. The abscess sac is enucleated and is removed. The "cellulitis" disappears, the pelvis is clear, and your patient gets well. It is not my purpose to dwell at length upon the technique of this operation, but to ask you to bear with me while I briefly describe two cases which I have selected because they illustrate the points I have endeavored to make:

*Case I.*—Mrs. M. S., colored, aged 24 years, married. Has had pelvic pain for four or five years. About January 1, 1892, she was taken with severe pain in lower abdomen. Had fever and severe chills, and has been confined to bed most of the time since. Patient was admitted to Saint Mark's Hospital February 29, 1892, with a temperature of 103° and pulse of 120. Vaginal examination showed cervix crowded up under the pubes. The uterus was immovably fixed in hard masses to be felt on either side of the pelvis. Fluctuation to be made out to left and posterior to cervix.

March 3 the patient was chloroformed and an aspirating needle passed into the fluctuating area and pus obtained. With needle as a guide the cavity was opened with a scalpel and six ounces of matter evacuated. Abscess cavity was washed out with sublimate solution and a rubber drainage tube inserted. During the next few days the patient's condition improved, and March 6 the temperature was normal and the pulse 100. Five days later, although the discharge of pus from the tube was free, the patient's condition had grown worse. The temperature was elevated and the pulse weak, and absorption of pus was evidently taking place.

March 11 the abdomen was opened and the pelvic organs found to be matted together by dense adhesions. The omentum was carefully separated from abdominal wall. Sounds were now passed into uterus and bladder as guides, and the mass in the right pelvis carefully separated from its adhesions to the bowels. An abscess cavity was opened, high up in the pelvis, and about two ounces of foul-smelling pus escaped into the general peritoneal cavity. The tube and ovary on right side were finally enucleated, but they were so friable that the ligature cut through and a sharp hemorrhage resulted. A pair of long forceps was clamped on the broad ligament and the handle left protruding through the abdominal incision. The abdominal cavity was washed out with large quantities of sterilized water and the pelvis packed with iodoform gauze. As the patient's condition was weak, no attempt was made to enucleate the left tube and ovary.

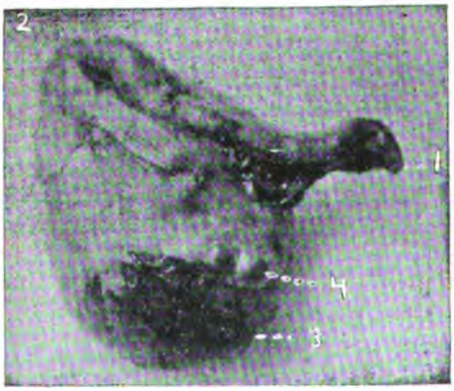
The patient reacted well from the operation. The forceps were removed in 48 hours, and the gauze on the sixth day. The patient made a perfect, although somewhat protracted convalescence, and left the hospital perfectly well, with no fistulæ.

This case well illustrates the impossibility of draining all cases of pelvic abscess by the vaginal incision. The pyosalpinx on the left side was easily opened and had it not been for the pus on the other side, the patient might have got along very well. The abdominal incision showed the bad condition of the right pelvis and the impossibility of cure except by enucleation. The patient still retains the remains of the old pyosalpinx on the left side, and certainly her chances are much more favorable for a recurrence of the disease than if that side of the pelvis had also been thoroughly cleared. This was among my first cases. Looking at it from the light of a larger experience in similar conditions, I think that now I should be able to remove the left tube and ovary at the same sitting without adding much to the danger of the operation. It does not seem to me that now I should consider it necessary to first drain through the vagina. These pus cases have great powers of resistance and react after an operation much better than one would suppose.

*Case II.*—Mrs. S. A. F., American, married, aged 23 years. There was a distinct tubercular history on the mother's side. Menstruation began at the age of 13, and has always been regular and painless. Since puberty she has always been troubled with leucorrhea, necessitating the use of napkins at times. For the past nine years she has had pain in the lower portion of abdomen. Patient was confined last January and has never been very strong since. About the first of July she began to suffer from severe pain in right pelvis. She kept about for two weeks and then was compelled to go to bed. The lower portion of the abdomen was extremely sensitive to pressure. After some weeks the sensitiveness became localized on the left side. There was a constant elevation of temperature and loss of appetite and flesh.

April 29, 1893, the patient was seen in consultation with her family physician. She was extremely pale and anemic, with a pulse of 120 and a temperature of 103°, and presented all the signs of septic infection. An examination showed the left pelvis to be filled with a fluctuating mass the size of a small cocoanut. The uterus could be felt pushed toward the right, but on account of the extreme pain caused by the examination and the pelvic adhesions, the appendages could not be differentiated from the mass. Diagnosis: left tubal or ovarian abscess or both. The removal of the mass by a radical operation was advised and accepted, and the patient was taken to Saint Mark's Hospital August 31, and a celiotomy performed the following day.

Operation at 10 A. M. An incision, three inches in length, was made in the median line. Considerable vascularity of the tissues was present. When the peritoneal cavity was opened, the omentum was found closely adherent to and covering a fluctuating tumor the size of a small cocoanut, which filled the entire left pelvis and a portion of the right. A portion of the small intestine was spread over and adherent to the upper surface of the tumor. This, together with the omentum, was carefully separated. This brought into view the enlarged and elongated left tube, which was firmly adherent to the cyst. The latter was aspirated and about ten ounces of moderately thin, odorless pus evacuated. The flabby cyst wall was gently separated from its bed and removed, together with the tube. The broad ligament was tied off by means of a chain suture, a very broad pedicle being left. The right appendage was firmly adherent to the broad ligament, being rolled up in the latter. As there was evidently no pus in either tube or ovary, it was deemed inadvisable to further prolong the operation, and the appendage was not removed. During the enucleation and aspiration of the pus sac, the intestines were protected as well as possible with gauze sponges, although some pus escaped into the pelvis. The abdominal walls were necessarily bathed in the same material. The pelvic and abdominal cavities were thoroughly flushed with large quantities of sterilized water. Silkworm gut sutures were used and a glass drainage tube employed. The usual dressings were applied. At the completion of the operation there was comparatively little shock.



S. F. September 1, 1893.
CHRONIC SALPINGITIS—OVARIAN ABSCESS.
One-fourth natural size.
1. Uterine Extremity of Tube. 2. Fimbriated Extremity of Tube. 3. Ovarian Abscess. 4. Small Cyst in Abscess Wall.

DOCTOR J. B. WHINERY kindly furnished me with the following report:

Specimens: Fallopian tube and ovary. (See figure). Measurements of tube: Length three and one-half inches, irregularly rounded and flattened on one side, with a diameter of three-fourths to one-half inch. Tube was very much thickened and composed mostly of fibrous tissue. It was adherent to the enlarged ovary almost its whole length. No dilatations were present. On making an incision lengthwise, it cut like cartilage. At the fimbriated end a small abscess was present, and distributed through the tissue of the tube were many small "pin head" neurotic areas. The ovary was much enlarged and converted into a pus sac, from which 300 centimeters of moderately thick, laudable pus were drawn off. The ovary measured three and one-half inches in the greatest diameter, three inches in the shorter and was two inches thick. In the walls of the pus cavity were many small cysts, showing multiple cystic degeneration. In some parts, these cysts gave the wall an irregular, thickened appearance. Through the upper part of the cavity, bands of tissue extended from side to side. Microscopically the tube showed a chronic inflammatory change. The walls of the tube were principally made up of fibrous tissue in various stages of development, small areas of small cell infiltration being present. No distinctively tuberculous nodules or tubercle bacilli were found. Sections from the many presented an increase of white fibrous tissue of loose type and an absence of normal ovarian tissue.

The drainage tube was removed within 48 hours. The patient made an uninterrupted recovery, the temperature never rising above 100°, and she was discharged well at the end of three weeks.

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# ALCOHOL AN AID TO THE COLD BATH.

By J. G. HUIZINGA, M. D., Holland, Michigan.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

The condemnation which alcohol receives from time to time at the hands of medical men is not without good reason, and yet in spite of all this it cannot be gainsaid that alcohol in some form is a very useful adjunct in combating certain diseased conditions. It is very true that in nearly all diseases where it has been used more or less successfully we are able to obtain equal and sometimes more satisfactory results with other drugs for which our patient is less liable to form an appetite, but in the treatment of hyperpyrexiæ, where the Brandt method of systematic cold bathing has been so successfully employed, alcohol should never be omitted. Of course alcohol alone will never accomplish great results in the reduction of temperature, but as an adjunct to the cold bath and cold pack it is very beneficial and in some cases absolutely necessary, especially in threatened pneumonia and meningitis when they occur as complications in typhoid fever.

When we study its physiological effects on the circulation we notice among other phenomena that moderate doses will stimulate the heart reflexly from the stomach immediately after its exhibition, followed in from 20 to 40 minutes by a dilatation of the small arterioles and capillaries on the surface of the body. The effect of this is quite evident; namely, the blood is taken from the internal organs and is dispersed throughout the capillary circulation which is largely located immediately beneath the skin, thus bringing more blood in contact with the cold externally applied, reducing temperature much more quickly and certainly than without the use of alcohol.

The Brandt method of treating hyperpyrexiæ has been followed by singularly successful results, so that the mortality has been reduced from 15 to 20 per cent. to 7 to 10 per cent., but the exhibition of a moderate dose of diluted alcohol from 20 to 40 minutes before the bath, to be repeated every 15 minutes until the bath is over, will bring even better results.

In looking over the statistics of enteric fevers which have been treated by the cold bath, we notice that many deaths are the results of pneumonia and meningitis, and the question arises, Are not some of these congestions due to the cold bath suddenly contracting the small peripheral vessels, and if so have we not in alcohol a remedy par excellence which tends to prevent just such congestions and thus bring the percentage of mortality still lower in this dreaded disease?

I have sometimes seen a hot sling given after the bath, which is very good, but why not employ it before the bath and thus insure greater beneficial effects?

The indiscriminate use of alcohol in hyperpyrexiæ should be discouraged, and, except as I have indicated above, there is no good reason why it should be employed in preference to other drugs which have proved themselves safer and more reliable. The rapid pulse, the increased delirium, dry tongue and high temperature, which sometimes follow the use of this drug, is frequently overlooked, and only too often the physician does not take the time to watch its effects to ascertain whether it has a beneficial or detrimental effect on his patient. The fact that many of our most conscientious physicians, whose names are too well known to require mention, use this drug less and less, is worthy of imitation.

# LECTURES.

## ALBUMINURIC RETINITIS.

By PROFESSOR POTAIN, Paris, France.

PROFESSOR OF CLINICAL MEDICINE; PHYSICIAN TO THE HOPITAL DE LA CHARITE.

Gentlemen: We have a man in number 15 bed of Bouillaud ward who has this disease. I should like to speak to you of his case, not that the trouble itself is a rare one, but on account of the special conditions in which it appeared.

The patient is 25 years of age, a clerk, and his father died of pulmonary phthisis. He says that when he was 14 he had typhoid fever which was rather slight, but after that he always had headaches. He is not syphilitic, but has had gonorrhea for some time, which passed away. At 21 he was put into the army and did two years' service without feeling ill effects from the drill and work. But during his last year he was taken with an intense thirst that required several quarts of liquid per day to satisfy. His headache now increased and he had some pain in his lower limbs; added to this insomnia came on. Last November he left the regiment and the polydipsia increased, so that he drank several quarts of cider a day, but did not partake of any alcoholic drink stronger than this, and was quite a sober man otherwise. Notwithstanding this he found that he now got cramps in his lower limbs and numbness in his hands, while he was much out of breath in going up stairs. He was then clerk in a paint-shop, and found that he could no longer distinguish between the colors. He had dyschromatopsia. In a week afterward achromatopsia was complete, and he could not tell black from white. Still he could read by bringing his book close up to his eyes. He had myopia on account of the accommodation having become almost impossible. These symptoms came on one after the other, and in the following month he could not recognize people in the street, while shortly afterward he was unable to see the other persons in shop alongside of him. At this time he got fever and intense headache with nausea and vomiting. This last mostly at meals.

These troubles brought him to the hospital. His pulse we found 108, and temperature slightly above normal in the evening. The arterial tension was 25 on my manometer, which is higher than any case I have seen of interstitial nephritis. This made us examine his urine, in which we found three grammes of albumin per quart of liquid. His tongue was whitish, the liver normal in size. The heart had nothing particular except the slightest shock before the first sound resembling a slight "*bruit de galop.*" But what struck us all was the increase in volume of the heart. The cardiac dullness was 14 centimeters square, and as often happens in aortic dilatation the right subclavian was raised upward.

Purging was ordered (calomel and scammony) with milk diet, and he was much better after a few days. The pulse was improved and the tension fell to 23, while the heart diminished in size. DOCTOR GALEZOWSKI made an ophthalmic examination and found that the lesions were as follows: The retina was swollen and masked as by a sort of film, while its borders were covered with a serous infiltration. The vessels were distended and the veins much twisted. There were red spots, rather long and striated, on the path of the vessels showing hemorrhagic extravasation, while around them could be seen bright white round spots. The diagnosis could not be doubted. We had a case of retinitis of renal origin. We then applied some wet cups on the lumbar region and a considerable amelioration resulted. The pulse came to 84, tension of arteries now only 16, and the heart dullness was only eight centimeters square. The vision improved and he could soon read a little. The albumin came down to one gram per quart.

The lesions are characteristic of albuminuric retinitis, as they were all on the posterior segment of the eye. The papilla was swollen, its borders less distinct than usual, and it presented a diffuse veil-like cloudiness. The veins were dilated, while the arteries were much smaller. The hemorrhagic patches on the tract of the vessels were quite in character with this disease.

The white spots were lustrous and were disseminated over the central part of the retina. Two kinds were noticed. At first, on the anterior limit or covering the vessels. These seemed to come from an alteration of the optic nerve fibres. The others, seen later, were more brilliant with clear borders and did not form clumps. As the patient improved, the alterations were seen more distinctly. Several of the white spots would be noticed to coalesce and form a sort of exudation which finished by enveloping the optic disk. Around them we could see some black spots, as though the pigment cells had been submitted to proliferation. This was seen in the older patches. These white spots seem to be a simple infiltration of the retinal stroma with an exaggeration in the lymphatic spaces. Later they produce a fatty degeneration of the retinal elements which brings on the white lustrous spots, that become shell-like, showing an old affection.

As to the hemorrhage, it is most likely in the sheath of the vessels and results from the alteration in them. There is first a thickening of the arterial walls and an infiltration of an amorphous matter. The veins become varicose, dilated in places and obliterated in others. The optic nerve does not escape form alteration. At first its fibres swell and become granular, and the contour of the nerves lost in the retinal exudation. If this goes on the optic nerve atrophies.

All this is accompanied by amblyopia—that is not so important a lesion as one would suppose. Some of these patients do not complain of loss of vision, and the lesions are only seen when someone thinks of examining the eye. In other cases the diminution of sight is noticed, as in our patient. **Wickelsen** showed that they bring an object close to the eyes to see. In certain cases this loss of sight may come on suddenly like the amaurosis seen in scarlatina and in women with eclampsia. This form, while terrible in its apparition, is not so serious in prognosis, for it mostly disappears rapidly.

Are there any lesions that explain this sudden loss of sight? Perhaps so. But what we know very well is that the amaurosis does not result only from the lesions that we find in the fundus of the eye. There are, then, troubles in the nervous system? Very likely. Finally, we must mention cases where the loss of sight goes on to complete blindness. We saw such a case at the Necker Hospital. It was a young girl who had complete amaurosis and who was attacked by saturnine nephritis. At the autopsy we found a complete atrophy of the optic nerve. So that in a certain number of cases albuminuric retinitis is not very serious, yet in some it may be very much so, and is then accompanied by a profound alteration of the optic nerve.

It is interesting to search what may be the relation between these alterations of the retina and Bright's disease. First of all, the ophthalmologists assure us that the lesions are characteristic and that they can tell that there is a renal alteration before finding albumin in the urine. An English writer (**Miley**) found 164 cases of albuminuria, and 51 of them had retinal alteration. Every time an alteration of the retina was found, the kidneys were already diseased, and if there was no albumin there were other symptoms proving a nephritis. In one word, the retinitis is always consecutive to the renal lesion, and does not precede it. It is not yet well established in which form of nephritis the retinal alterations are mostly found, but it is known that in catarrhal nephritis it is rare, as you have seen in our service. We think that it may be said that it is interstitial nephritis that is most frequently accompanied by albuminuric retinitis.

There is no relation between the quantity of albumin excreted and the retinal lesions. What seems to establish a relation between the eye and kidney attacked is that cases are given of one eye attacked and one kidney, on the same side, and when both eyes are attacked so are the two kidneys. It is difficult to say what part uremia has in retinal alteration and in the production of amaurosis. Uremic blindness is much more intense. But it is possible that the two influences may be associated.

What is the prognosis of these cases? and what shall we deduct from the lesion of the retina as to the kidneys? If the renal lesions persist, the retinal ones remain. The hemorrhages go into white spots and form clouds that diminish vision. But these lesions can be cured. It is rare, that is true, but so is cure of interstitial nephritis. Nevertheless, when the lesion is recent, it has been known to get well. In lying-in women who get the trouble it cures frequently, and in scarlatinal nephritis also. What will increase in prognostic gravity is the appearance of glaucoma which may come just as the retinitis seems to be going off. Retinitis, then, seems to make the prognosis of interstitial nephritis serious, and **Miley** gives only six months as the duration of life after it is seen. In one case 18 months. Like in other conditions, this would depend on the hygienic surroundings of the patient. We have seen patients well taken care of live several years. It must, however, be admitted that when we find the eye lesions the prognosis is very serious.

*Treatment.*—The retinal lesion not being in direct relation to the albuminuria but more closely to the renal lesion, makes it important (1) to bring the kidney up to its maximum strength; (2) to diminish the toxic substances that may be introduced into the body, and those that come from the organism itself, by the digestive tract. This double end is met by milk diet, not that it increases so much diuresis, but it diminishes toxines. As a rule these patients digest milk well and thus indigestion is prevented. Besides, the organism no longer receives toxic substances coming from other food, and the organs are less irritated and congested. We must not, however, only give hygienic prescriptions. It will be well to apply some wet cups to the lumbar region, and look to it that there is a complete elimination of the intestinal matters, by giving purgatives, and if we wish for a diuretic effect add calomel. With this treatment we find that the patients are constantly improved in health.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, OCTOBER 16, 1893.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### EXHIBITION OF PATIENTS.

**DOCTOR TAPPEY** presented a case of a young man who had come under his care five weeks before, suffering from a compound fracture of the humerus with entire division of the biceps muscle. Amputation was at first deemed necessary, but the bone was wired together, the ends of the muscle sewed with the buried animal suture, and the arm put up in a plaster-of-Paris dressing for two weeks, after which passive motion was practiced. The wound had healed by first intention, except where the drainage tube had been inserted, and there was but little ankylosis present.

### PATHOLOGICAL SPECIMENS.

**DOCTOR McGRAW** was disappointed in not being able to show a case which had promised to come before the society, but related the history. The patient, when four or five years old, began to show signs of dropsy with enlargement of the liver. The condition continued producing deformity of the ribs, embarrassment in breathing; with irritability of the heart. Three years ago the doctor performed a laparotomy and let out the dropsical effusion. At the time the liver was found covered with lymph. The operation had resulted most favorably for the patient, relieving the deformity and the dyspnea, although some irritability of the heart still continued. **DOCTOR McGRAW** presented for the examination of those present two stones which he had removed from the bladder by a suprapublic cystotomy. A very interesting feature of the case was that the patient had been operated on for stone a few months previously by lithotrity, at which time one stone was crushed and removed, but repeated soundings by several surgeons failed to locate any more calculi. However, the symptoms from which the patient had been suffering persisted, and he came into the doctor's hands, who operated with the above result. **Doctor McGraw** also showed a specimen of the head of the humerus with a tubercular lesion which he had removed from a woman 41 years of age.

**Doctor Longyear** said that he felt very much interested in the calculi exhibited, as he had performed the operation of lithotrity, and in company with several others had made a careful examination and had been unable to find any more stones. He regarded the case as very instructive in showing how the use of the sounder fails oftentimes to detect the stone.

**Doctor Frothingham** related a case in his practice where a stone had been found once, but subsequent examination failed to detect it; an operation confirmed the first diagnosis.

**Doctor Tappey** wished to inquire if it were regarded as justifiable to do a suprapubic cystotomy for exploratory diagnosis.

**Doctor McGraw** thought that the suprapubic operation was preferable to the perineal operation on account of the ease with which the entire bladder could be explored. Certainly the suprapubic operation was indicated when there was an enlarged prostate. In his experience he had not found it necessary to fill either the bladder or the rectum. It was sufficient to introduce a sound and use that as guide. In cases where the bladder was contracted and the bladder wall thickened this operation was contraindicated.

**Doctor Douglas** inquired concerning the value of this operation in cases of chronic cystitis.

**Doctor McGraw** thought that the median operation was preferable where simple drainage was desired, except when the case was complicated with an enlargement of the prostate.

**Doctor Lyster** related a case where patient was afflicted with cystitis and the presence of a stone was suspected, but none could be found with the sounder. An operation for the relief of the cystitis was performed, and with the first gush of fluid from the bladder a stone came out with the water.

## DISCUSSION OF PAPERS.

**Doctor Shurly** read a paper on "Pleuritis."

**Doctor Lyster** spoke about the frequency with which we find evidences of a pleurisy in autopsies, particularly on persons past the age of 40. He had had good results from paracentesis with insertion of drainage tube without the exsecting of a rib.

**Doctor Douglas** thought that in cases of pneumonia, where the respirations were 60 to 80 a minute, we should examine very carefully to discover, if possible, if there were any fluid in the pleural cavity. If there were, its evacuation would relieve the dyspnea to a considerable extent. He related a case in point.

**Doctor Longyear** had often noticed the relation between pleuritis and rheumatism. In such cases treatment of the pleuritis by rheumatic remedies had been beneficial.

**Doctor Jennings** contended strongly against the identity of rheumatism and pleuritis, and spoke concerning the treatment of the early stages of pleuritis. He considered that opium was the drug on which we should rely both for its power to limit the effusion and its power to quiet the accompanying pain. Drugs which diminished blood pressure were also indicated.

**Doctor Newman** thought that pleurisy was sometimes due to cold, and related a case where ascites had been due to cold.

**Doctor Mann** considered that it was pretty well agreed upon that most if not all cases of pleuritis were due to the diplococcus of **Fraenkel**; also that cases of purulent pleurisy were due to a staphylococcus.

**Doctor Shurly** thought that the microbic theory had not stood the test of time; also that the diplococcus had been found in cases of pleuro-pneumonia largely. He wished to be clearly understood as maintaining an analogy only between acute pleuritis and rheumatism.

Adjourned. **Preston M. Hickey, M. D.**, Secretary.

## CORRESPONDENCE.

### BERLIN LETTER.

### THE SELECTION OF A CENTRE FOR CLINICAL STUDY.

In these days when articles containing somebody's impressions of foreign medical matters are so common in medical journals, and when so many physicians themselves visit the great European medical centres for purposes of study or recreation, it requires no little temerity on the part of one who is not particularly gifted in the art of expression, and who perhaps enjoys no unusual advantages in his point of view, to inflict upon an already overburdened profession his more or less profound impressions of medical men and methods in a country so well known to American physicians as is Germany. Two things, however, have induced me to respond to a call from one of the editors of The Physician and Surgeon: first, that in the last fifteen years. I have noticed but few articles of a similar nature in The Physician and Surgeon; and second, that when, several months ago, I began to make enquiries as to when, and how, and where to go to make the most of a year's time in studying gynecology and obstetrics, I had no little difficulty in obtaining the desired information.

Many American physicians go to New York, Philadelphia or Chicago for post-graduate study. The opportunities offered for such work in these cities are excellent. They possess certain clinics and opportunities of study which are unsurpassed anywhere, and American gynecologists are in many respects equal to any in the world. Indeed, in some lines of work, I think they are in advance of the Germans. But there is undoubtedly no place where a student can attend so many excellent clinics with so little loss of time, and where he can so well train his eyes and hands in methods of diagnosis and treatment as in Berlin, Vienna, or Paris, while if he is less anxious for clinical work, and wishes to train himself in laboratory work and methods, or to persue microscopy and pathology, he can nowhere accomplish this so well as in Germany.

### A KNOWLEDGE OF THE PREVAILING LANGUAGE A NECESSARY ADJUNCT TO GOOD WORK.

But before being able to work to advantage here, some knowledge of the German language is absolutely necessary. The language is a great obstacle which can be overcome only by hard study. Those who come to Germany with the idea that they can secure good instruction in English, or that "die deutsche sprache" can be absorbed through the pores of the skin if they are only where they can hear enough of it spoken, experience a sad and discouraging shock after being here a short time, and several Americans who came to Berlin when I did, in September, with the intention of remaining in Germany several months or a year, have already returned to New York. True, most of the prominent men can talk more or less English; and if one wished only to see operations, and to spend but a week or two in a place, much pleasure and profit might be obtained without knowing much German. But a fair acquaintance with the language is necessary for the accomplishment of much real work. This may be obtained by going to a small town but little frequented by English speaking people, and spending a couple of months in uninterrupted study of German, in case one has not already given it the necessary amount of time at home. Two months spent in this way is enough to enable one to begin medical work advantageously.

### EXPENSE OF TRANSPORTATION, LIVING AND INSTRUCTION.

The expense to be incurred is always an important consideration for one contemplating a period of study abroad. There are several good lines of steamers making the Continent, the cheapest of which are the Red Star and Netherlands—American lines from New York, and the North German Lloyd from Baltimore. Upon the best boats of either of these lines first-class passage can be obtained for fifty dollars and upward, depending upon location of stateroom and season of year.

The actual expense of living in Berlin is about the same as at home. Good board and room can be obtained for from twenty to thirty dollars a month.

The outlay for instruction, however, varies greatly, depending upon the character of work one wishes to do. If a student desires to do general work, and spend several months at one place, the cheapest plan is to matriculate in the University, and attend such of the regular courses as he may select. Of these there are a large number in every department of medicine and surgery, and were one inclined to limit his work to one or two branches, most of the day would be profitably employed. For instance, a student wishing to devote his entire time to general medicine, could occupy himself as follows during the winter semester, from October 15 to March 15:

8–10 A. M., Virchow, demonstration course of pathological anatomy and microscopy; or
Gerhardt, medical clinic; or
Fränkel, medical diagnosis and therapy.
10–11 A. M., Ewald, medical diagnosis and therapy; or
Virchow, pathological histology.
11–12 A. M., Leyden, medical clinic; or
Fräntzel, lung diseases.
12– 1 P. M., Leyden, heart diseases; or
Fräntzel, ausculation, percussion, et cetera; or
Litten, practice in diagnosis; or
Klemperer, physical diagnosis.
1– 2 P. M., Senator, medical clinic; or
Baginski, diseases of children.

2– 3 P. M., Senator, diseases of children; or
Von Noorden, special pathology and therapy; or
Rosenheim, diseases of the stomach.
3– 4 P. M., Neumann, diseases of children; or
Grunmech, physical diagnosis; or
Hausemann, normal and pathological growths.
4– 5 P. M., Ehrlich, diseases of the blood; or
Breiger, special therapy of internal diseases; or
Ewald, dietetics.
5– 6 P. M., Hirsch, special pathology or therapy; or
Ewald, diseases of the stomach; or
Klemperer, special pathology and therapy.
6– 7 P. M., Fränkel, diseases of the heart; or
Baginski, influence of modern system of school instruction; or
Paget, history of medical literature.

In addition to these there are a large number of courses in bacteriology, histology, pathology, nervous and mental diseases, and other subjects connected with general medicine.

An almost equally large number of courses of study are available to the student wishing to make a special study of surgery. A few of them are the following:

8–10 A. M., Waldeyer, anatomy.
9½–11 A. M., Bardeleben, surgical clinic; or
Sonnenburg, surgical clinic.
10–11 A. M., Busch, general surgery; or
Mitscherlick, general and special surgery.
11–12 A. M., Bardeleben, surgery with demonstrations; or
Gluck, surgical diagnosis and therapy.
12– 1 P. M., Schüller, joint diseases; or
Gurlt, operations on the cadaver.
1– 2 P. M., De Ruyter, bandaging; or
Gurlt, operations on the cadaver.
2– 4 P. M., Bergmann, surgical clinic; or
Wolff, orthopedic surgery.
4– 5 P. M., Wolff, surgical diagnosis; or
Nasse, use of surgical instruments.
5– 7 P. M., Schlange, surgical diagnosis and therapy; or
Rose, general surgery.

Some of these University clinics, especially those required for graduation, are crowded with undergraduate students, and one cannot get very near to the patient. Regular attendance, however, at the daily clinics of such men as Gerhardt, Leyden, Gusserow or Ohlshausen for an entire semester could not fail to be very beneficial, and they are largely attended by foreign doctors. But the greater part of the clinics advertised in the University catalogue are not required of the undergraduates, and the attendance at them is usually small, so that in those one can often get a good deal of personal practical experience in examining cases and doing minor operations. The cost of such courses of work in the University as I have spoken of would probably not exceed one hundred dollars for the semester. Equally good courses of study are given during the second semester, which runs from April to August.

But American physicians who visit Europe as a rule wish to visit several of the prominent medical centers in a limited time, and to see and work with the best men in private courses in which the number of students is limited to a small number. The expense of such instruction is much greater than that just mentioned. Twice a year in Berlin, in October and March, many of the leading men give what are called vacation courses, lasting one month, and which are intended for graduates of medicine only. Many of the courses are very valuable and are attended by physicians from all over the world. They are given during vacation time, when the various teachers are not employed with University work, and one does not, therefore, have an opportunity to fill in unemployed time with attending University clinics, which can usually be done a month or two without any expense. The various vacation courses are held from three to six times a week, and cost from eight to twenty dollars each, so that if one takes from four to six courses in order to keep busy, the cost of the month's instruction is considerable.

There are so many excellent teachers in Berlin, however, and clinical material is so very abundant, that one can obtain private courses in any desired subject at almost any time of the year. This is preëminently so in gynecology. One can spend the entire day, from 7 or 8 o'clock in the morning till 6 or 8 in the evening, upon this one branch. The opportunities for studying gynecology are no doubt good in several other German cities, but I do not see how they can be better than those to be obtained here. For instance, during October I took **Martin's** vacation course of gynecological operations upon the phantom from 7 to 9 o'clock daily, and his course in diagnosis, et cetera, from 11 to 3 o'clock. From 5 to 6 o'clock I had **Ehrenhaus** in diseases of children. The cost of the courses was forty dollars for the month. In November several of us Americans worked up the following courses:

8–10 A. M., **Theodore Landau**, pathological microscopy of the female generative organs.
10–12 A. M., **Leopold Landau**, operations and examinations.
1– 3 P. M., **Benda**, formal histology of the female generative organs.
4½– 6 P. M., **Theodore Landau**, touch course in examining women.
6–7½ P. M., **Kossmann**, gross pathology of the female generative organs.

These courses were expensive, as the prices for such teaching are established by the rates charged for vacation courses, and the month's work cost us seventy-five dollars each.

## DOCTOR MARTIN ELECTED PROFESSOR EXTRAORDINARY IN THE ROYAL UNIVERSITY.

**Martin** is perhaps the most prominent gynecologist on the Continent. He is a large, powerful man, weighing over 225 pounds, speaks seven languages and is but 46 years old. His father was also one of the most eminent medical men in Europe, and was professor of gynecology in the Royal University of Berlin for 17 years. On his death, in 1875, at the age of 65 years, **Schroeder** was appointed to fill the vacancy, and he in turn was followed seven years ago by **Ohlshausen**, who has been for many years the family physician of the present

Empress, and who has attended her in each of her seven confinements. **Martin** has just been elected professor extraordinary in the University, and his promotion to full professorship is a probability of the near future, as both **Ohlshausen** and **Gusserow**, the professors of obstetrics, are old men.

## SERVICE AT THE CLINICIAN'S HOSPITAL.

**Martin**'s operating is done at his private hospital, containing 60 beds, which he erected in 1885. He treats here at his polyclinic, or out-door dispensary, which is, of course, quite separate from his private practice, on an average 30 patients a day; and performs 15 to 20 laparotomies, and about 120 other operations, a month. He gives two gynecological courses. The first is held from 7 to 9 A. M., daily, and consists of operations upon the female genital organs, which are disinfected and attached to manakins. His second course consists of the performance of all kinds of operations excepting laparotômies, as vaginal extirpations, anterior and posterior salporrhaphies, et cetera, from 11 to 12 o'clock; didactic lectures, in which he touches upon the most important practical points of gynecology, from 12 to 1 o'clock; and examinations of women by the students from 1 to 3 o'clock. Twice a week he does from one to five laparotomies. Chloroform is the only anesthetic used in his clinic. Examinations, treatments and operations are made with the patient upon the back, **Sims**' position not being used at all.

## THE USE OF SOUND AND DILATOR.

He uses the sound a good deal, and considers it entirely harmless in skillful hands. Before using it he is always careful to exclude pregnancy, menstruation, and acute or subacute inflammatory processes in the uterus or its adnexa. He has discarded all forms of dilatation of the cervical canal, preferring to enlarge its calibre, when necessary, with a knife. The use of steel dilators, which are so popular in America, he thinks especially reprehensible, as they can act in no other way than by tearing the tissues, thus opening the way to infection. When the cervix must be opened wide enough to admit the index finger, he precedes its division by ligating the uterine arteries. This is quickly done, after locating the artery at the side of the uterus with the index finger, by passing a large full curved needle armed with silk through the lateral vault of the vagina, about one-half inch from the cervix. As much tissue as is deemed necessary is included, the needle brought out again close to its point of insertion, and the thread tied tightly. This effectually prevents all hemorrhage. The cervix is then divided as much as necessary with a probe-pointed bistoury, and when the desired examination or operation is completed, the wound is united with sutures, and the lateral ligatures removed.

## THE DULL CURETTE IN CHRONIC ENDOMETRITIS.

**Martin** also uses the dull curette very frequently for both diagnostic and therapeutic purposes. Its use is always preceded by thorough disinfection of the vagina. After fixation of the uterus with forceps, the course of the cervical canal is determined by the sound, and the curette is gently but firmly pressed into the uterine cavity. If the tissues are so unyielding as to prevent its introduction, which is very seldom, they are incised a little with the knife. When the curettement is finished, the cavity of the uterus is irrigated with sterilized water, and from fifteen to thirty minims of liquor ferri persulphatis injected into it with a Braun's syringe. The uterus is then again washed out to remove the excess of liquor ferri, clots, et cetera, a tampon of iodoform gauze is placed over the cervix, and the uterus is pushed up into position. The patient is kept in bed four or five days after a curettement with an ice-bag over the abdomen if necessary, the tampon is removed in twenty-four hours, and the vagina is irrigated twice a day with a two per cent. solution of carbolic acid or a 1 to 5,000 bichloride solution. He has frequently curetted in this manner when diseases of the uterine appendages, peri- and parametritis were present, and only exceptionally has any reaction followed. Much less frequently than formerly when curetting was preceded by dilatation of the cervix.

This is Martin's treatment for chronic endometritis. When in a given case recovery is not secured by improving the general health of the patient, rest of the genital organs, vaginal douches and hot sitz baths, he removes the diseased mucous membrane with the dull curette. He has had very extensive experience with the application of various astringent and alterative fluids and powders to the cavity of the uterus, with but little satisfaction. He has shown by repeated microscopical examinations that the whole of the superficial part of the endometrium may be readily removed with the curette, and that after a thorough curetting complete regeneration of the mucous membrane occurs without the formation of cicatrices such as are found after the use of certain fluid applications, and of electricity. Of course the diseased condition of the endometrium may be again caused by the ends of the glands which are necessarily left behind in the superficial muscular layer of the uterus, and we know that some cases of chronic endometritis are incurable. Several times have I seen Martin, as well as other operators here, remove the entire uterus per vagina for incurable endometritis accompanied with severe hemorrhage. But his success with curettement in chronic endometritis has been so much more frequent than with any other treatment that he resorts to it whenever endometritis demands local treatment. The liquor ferri is used to make the destruction of the diseased mucous membrane more complete, to prevent hemorrhage, and as an antiseptic. As this condition, moreover, is so often associated with chronic metritis, amputation of the cervix is frequently performed at the same time in order to stimulate a transformation or regeneration of the tissues of the entire uterus.

## RETROFLEXIONS AND VERSIONS.

Martin does not treat retroflexions or versions of the uterus unless the patient has symptoms which can be traced unmistakably to the malposition. In such a case, if the uterus is movable, it is restored to position and maintained by a pessary, as the intercurrent disturbances are found to disappear more quickly if the misplacement is corrected. When the diseased condition which demanded treatment is cured, and the uterus becomes normal in size and consistency, the pessary is removed without reference to the position of the uterus. If the diseased condition does not return, any further mechanical treatment is omitted. If it again appears, the pessary is reëmployed. In a large majority of such cases the patient remains well after removal of the pessary, showing that the malposition of the uterus is not the cause of the symptoms of which the patient complained, but that they are more frequently caused by intercurrent disturbances, which more readily disappear when the uterus is temporarily held in proper position. Scarcely 15 per cent. of retrodisplacements can be permanently cured by pessaries, in Doctor Martin's opinion.

### RETROVERSIONS AND FLEXIONS.

In those infrequent cases in which retroversions and flexions themselves give rise to symptoms, if the uterus is movable, and the patient will not or cannot wear a pessary constantly, Mackenrodt's operation of anterior vaginal fixation of the uterus is performed, instead of Alexander's operation which has been so much used in America. When the uterus is immovable, the abdominal cavity is opened, adhesions separated, the uterus drawn forward, and fixed to the anterior abdominal wall by passing the three lowest silk sutures employed in closing the abdominal wound through its fundus. No scarification of the opposing peritoneal surface is made.

### MACKENRODT'S OPERATION.

Mackenrodt's operation is apparently gaining ground rapidly in Germany. It has been on trial less than two years and Doctor Martin and his first assistant, Doctor Orthmann, have already performed it 75 times. The indications for it are the same as for Alexander's operation, namely, retroversion and retroflexion, whether existing alone, or as a complication of descensus. The patient is placed upon the back and the perineum retracted with a Martin's or a Simon's speculum. A tenaculum is then inserted into the anterior vaginal wall, directly underneath the urethral opening, another into the anterior lip of the cervix, and a sound passed into the uterus. Throughout the operation the uterus is drawn well down, and its fundus kept in close proximity to the anterior vaginal wall by the sound. An incision is now made in the anterior vaginal wall from about one-half inch below the urethral opening to the cervix, and the mucous membrane carefully dissected back for one-half or three-quarters of an inch on either side of the incision, thus exposing a portion of the posterior wall of the bladder. This is gently loosened up and pushed above the upper angle of the wound, when the anterior surface of the uterus presents itself. The upper part of the wound is now closed by three strong silk sutures which pass also transversely the anterior wall of the body of the uterus, and keep it in contact with the anterior wall of the vagina. The lower part of the wound is now closed with a continuous catgut suture, the tenaculi, sound and speculum removed, and the uterus replaced. In an anatomical sense the results of the operation, when well performed, are perfect, as I can testify from many observations. Especially valuable is the operation in cases of descent of the anterior vaginal wall, or cystocele, as these tissues are lifted well up in the attempts of the uterus to resume its former position. Several patients upon whom this operation has been performed have gone through pregnancy, and the uterus has always been found in normal position afterward.

### PROLAPSE OF THE UTERUS.

Martin's treatment for prolapse or downward descent of the uterus is mainly surgical. When the process is in its early stages, and the patient has as yet received no local treatment, he believes something may be accomplished by regulating the bowels, improving the general health of the patient, and applying astringent medication to the prolaped parts, his favorite application being tampons saturated with glycerole of tannin. In later cases, local treatment can be only palliative, and he advocates in all such, a radical operation. He believes that the round, broad, and sacro-uterine ligaments, when in a normal state, exercise but little influence in supporting the uterus, and while recognizing the part played by intra-abdominal pressure, he considers the pelvic floor to be the main support and carrier of the vagina and uterus. Prolapse of the uterus is therefore, as a rule, due to disturbances in the anatomical relations of the tissues forming the floor of the pelvis. It is usually accompanied with prolapse of the anterior or posterior vaginal wall, or both, and the perineum is always either torn or badly stretched, and unable to bear the pressure of the superimposed vagina. The uterus also is frequently lacerated and hypertrophied. Everything abnormal pertaining to the uterus and vagina is restored at one sitting, and as MARTIN is a very rapid operator, he often completes his operations upon the uterus, anterior and posterior vaginal walls and perineum in less than half an hour. When a cervix is simply lacerated, and no hypertrophy, or diseased mucous membrane is present, he performs EMMETT's operation. The conditions are usually such, however, as to call for amputation of the cervix. This procedure was introduced by MARTIN 15 or 20 years ago for the cure of chronic metritis. It was very unfavorably received at first, but succeeded in gaining recognition as a valuable surgical procedure, although there are many surgeons at present in Germany who consider the operation to be indicated much less frequently than do MARTIN and his school. Amputation of the cervix, as it is called, is not a removal of the entire vaginal portion, but only a reconstruction of it. Both pathological examinations and clinical observations have shown that after such an operation a transformation of the tissues of the entire uterus takes place, such as we see in childhood. His operations for prolapsus uteri, therefore, often include curetting for the endometrites; amputation of the cervix for the lacerated and hypertrophied uterus; anterior colporrhaphy to remove the excess of tissue from the anterior vaginal wall, in order to give it the resistance necessary to support the bladder; MACKENRODT's operation to correct the retroflexion of the uterus which is so often present; posterior colporrhaphy; and perineorrhaphy.

The incisions in anterior colporrhaphy extend from just beneath the urethral opening to the neighborhood of the cervix, and include in width a greater or less extent of the anterior wall of the vagina. After dissecting off the mucous membrane, the oval wound thus formed is closed with continuous catgut sutures. Frequently two or three rows of buried continuous sutures are inserted, one over the other, to secure better coaptation of the deeper parts of the freshened surface and to bring together more easily the edges of the wound. His operation on the cervix is a combination of HEGAR's and SCHROEDER's. The lips of the os are split apart with a knife up to the vaginal junction, then a wedge-shaped piece is removed from the posterior lip by means of an incision extending transversely across its inner surface, at the junction of the healthy and diseased mucous membrane, which is joined by another incision on its outer surface, the amount of tissue removed depending upon the amount of disease present. The central part of the wound thus made, where the new external os is to be, is sutured immediately. The same process is repeated upon the anterior lip, and the operation completed by suturing the lateral angles. Only catgut is used.

When the posterior vaginal wall and perineum are not much injured, MARTIN does HEGAR's operation. But when the pelvic floor is much relaxed, or a cystocele is present, he performs his own operation, which in his hands gives the best results I have yet seen here. He does not, as do most other operators, remove the posterior vaginal column, but leaves behind the muscular fibres of this column to strengthen the newly formed vaginal wall. He removes two somewhat narrow triangular pieces, with apices above, from each side of the posterior column, beginning high up in the vagina and extending to the lower end of the canal. These freshened surfaces are then sutured with continuous catgut, thereby very effectually narrowing the vagina. The perineum is then restored by making an incision from one nympha to the other on a level with the lower ends of the vaginal incisions, and then carrying it around the introitus at the junction of the skin and mucous membrane. The tissue included in these incisions is freshened and brought together by two or three layers of continuous catgut. The patient's legs are then tied together and she is kept on her back in bed for three weeks. No vaginal injections are used, but the vulva is irrigated after urinating. The bowels are moved, if necessary, with castor oil after the fourth day. In three weeks the patient is allowed to sit up in bed, and to get upon her feet two or three days later.

COLLINS H. JOHNSTON, M. D.

BERLIN, December 5, 1893.

# EDITORIAL ARTICLES.

## THE UNION OF MEDICAL SOCIETIES.

THE matter of uniting into one general society the various medical organizations of the city of Detroit is at present occupying the attention of the local profession. Naturally some differences of opinion will arise as to the expediency of such action, and those desiring the maintenance of the *status quo* will insist upon the manifold advantages of separate organization. It may not be inopportune to observe some of the results of what has been done in this direction in a neighboring city.

In the city of Cincinnati the Academy of Medicine was organized twelve years ago with sixty members, and has since continued to grow in influence and numbers as a medical society. Along with this organization has been a sister society having the same *raison d'etre,* and known as the Cincinnati Medical Society. It seems to have occurred to the members of these associations that their aims being identical and their method of pursuing those aims similar, no good purpose could be served by their separation, but that their coalescence would promote professional welfare. This has recently been accomplished, and Cincinnati has now a large, influential medical organization numbering between three and four hundred members. A commodious hall has been obtained for the meetings, and it is hoped that four hundred additional names will be added to the membership rolls, thus including all reputable practitioners in the vicinity of the city.

The influence of such a body as this was soon to be felt. It is calculated that at the last election, when the Academy as a body went somewhat actively into politics, that it controlled thirty-five hundred votes. The disposition the Academy has manifested to become an active force in public affairs, will, it is believed, insure the speedy enactment of some highly desirable medical legislation.

The conditions which prevailed in Cincinnati, closely resemble those now existing in Detroit. Here also two large societies having identically similar ends to attain divide the suffrages of the profession. Many, being members of both, are called upon to pay two fees. When any matter involving the profession, any question of municipal sanitation, or any point of public policy should be pronounced upon by a united profession, there is no organization capable of delivering an emphatic pronunciamento, as neither society can claim to represent the profession. Medical legislation, such as it is, is moulded in variance to professional opinion rather than in deference to it—one reason of this being that there is no organization sufficiently strong to exert any influence in this direction. It would certainly seem that no useful purpose is served by these sister societies remaining separate, and that good would be effected by their union into one strong body.

The advantages of multiple organizations for scientific purposes is apt to be overrated. Small societies of specialists will always have a sphere of usefulness provided they limit their membership to those strictly within their category; but when these societies indiscriminately enroll the general practitioner, the scientific vocation of these organizations is imperilled. It must not be forgotten that segregation is, after all, a higher type of social evolution than differentiation, nor must the significance of the homely maxim be ignored, "in union is strength."

## EDITORIAL BREVITIES.

### THE NATIONAL QUARANTINE BILL.

The bill drafted by the New York Academy of Medicine does not afford complete satisfaction, and adverse reports have been adopted by the Chicago Medical Society and the Milwaukee Medical Society. The objections, for the most part, concentrate upon the fact that a cabinet bureau of health is not created. It has been pointed out that the accomplishment of this is attended with great difficulty and would require a change of public sentiment, which no effort has as yet been made to effect. The quarantine bill will be a step in the right direction, and by placing national sanitation under federal control, will open the way to more comprehensive measures in the future. The bill should receive the support of the profession.

### KOSHER MEAT.

Among the valuable hygienic inheritances received from Moses, one full of practical wisdom is the Jewish system of meat inspection. A British report on the marking of foreign meat recently showed that only seventy-three per cent. of the oxen which were submitted to Jewish slaughterers were pronounced "Kosher" or fit, the remaining twenty-seven per cent. being handed over for the use of the gentiles. The Jewish "schochet" or slaughterer probably does not accomplish his disagreeable duty in a better way than the gentile slaughterer, but as he has to be familiar with the signs of health and disease in animals, both live and dead, the eaters of "Kosher" meat have an advantage from the sanitary stand-point the gentiles sadly lack in these days of animal tuberculosis. Why should not our State board of health dignify the avocation of slaughterer by submitting those who follow it to a searching examination, such as the Jewish authorities do on all matters relating to slaying.

### MEDICAL LIBRARIES.

THE gift made by PROFESSOR SENN to the Newberry Library, of Chicago, of his fine collection of medical works, is worthy of general imitation. It was recently suggested that the library of the Detroit Medical and Library Association should be transferred to some other than professional keeping. If Detroit is going to be a medical centre in the future, it will be so by virtue of the efforts of the present generation to make it so. A good medical library is indispensable for all engaged in practical or theoretical medicine. It is to be hoped that the owners of private collections in Detroit will see their way to adding to the six thousand volumes which already form the respectable nucleus of a future medical library.

## MEDICAL NEWS.

### A BOARD OF HEALTH WITH AUTHORITY.

THE legal powers vested in the Florida Board of Health exceed those granted similar bodies by any other State. They exact prompt report of contagious diseases from attending physicians, and punish failure to render immediate notice in cases of small-pox, yellow-fever, or cholera, "by imprisonment not exceeding six months, or by fine not exceeding $1,000." Physicians are required to pass an examination. A medical examining board renders service in each judicial circuit, the homeopaths having an independent board. The following are the secretaries of each: (1) Doctor C. R. Oglesby, Pensacola; (2) Doctor G. W. Lamar, Quincy; (3) Doctor S. T. Overstreet, Madison; (4) Doctor J. L. Horsey, Fernandina; (5) Doctor G. E. Welch, Palatka; (6) Doctor M. Kennedy, Bartow; (7) Doctor F. H. Caldwell, Sanford; (homeopathic) Doctor C. W. Johnson, Jacksonville. There are five hundred and forty-one licensed physicians in Florida. Of this number thirty-four are homeopaths and nineteen eclectics.

### A PROTEST AGAINST FOOT-BALL.

THE faculty of the University of Virginia have issued a circular exhorting the students to refrain from indulging in the fatal game. This is the first American collegiate protest, and the practice is characterized "as one which has consequences almost wholly evil." After citing many objections to this sort of exercise, and especially to the intercollegiate contests, the faculty proceed to define the attitude of the University relative thereto in the following terms: "As a plan more consonant with the spirit of this University and, we trust, of better ultimate effect, it has been determined to appeal to the good sense of the students and to the affectionate solicitude of their parents, and with respectful insistance to urge that this evil be eradicated, or at least largely abated. Students who have come to years of discretion are requested to abstain from this relaxation in the interest of collegiate order as well as for their personal good. The parents of others are advised rigorously to withhold consent to such excursions. The faculty earnestly trust that this expression of their serious opinion will receive serious heed. All boyish and manly sports have in them an element of danger; it is the price which mankind sees fit to pay with cheerfulness for virile indifference to physical peril. But careful guard is to be had at this point, and we shall not hesitate to demand the correction of features which lead either to moral or physical exercises." As illustrative of injuries received while participating in this exercise, the following partial record is collected from the wreckage of the season recently terminated in the United States:

| | |
|---|---|
| Deaths, | 8 |
| Fracture of the leg, | 6 |
| Double fracture of the leg, | 1 |
| Fracture of the thigh, | 1 |
| Fracture of the arm, | 1 |
| Fracture of the collar-bone, | 1 |
| Dislocation of the shoulder, | 1 |
| Dislocation of the patella, | 1 |
| Especially serious injuries, | 5 |
| Sundry disabling injuries, | 119 |
| Total, | 144 |

### TRAINED NURSES RECEIVE DIPLOMAS AT THE UNIVERSITY OF MICHIGAN.

On the evening of December 20 the first class of seven graduated from the training school for nurses of the University of Michigan. Their names were: Josephine M. Allen, Detroit; Emma Botsford, Amherstburg, Ontario; Roberta Brown, of Ann Arbor; Anna Corrick, of Sarnia, Ontario; Ida Sauermann, of Paris, France; Lena Tucker, of Lafayette, Indiana; Ann Harrison, of Richmond, Indiana. Mrs. President Angell handed the diplomas to the respective young ladies, the board of regents thinking it appropriate that the young women should receive them from the hand of a women.

### HOSPITAL ACCOMMODATIONS ON THE MAN-OF-WAR NEW YORK.

The following description of the inadequate nature of hospital accommodations on this new man-of-war is clipped from the daily press of New York: "The New York man-of-war is getting ready for sea. The vessel will have six hundred men on board when she goes out, and it is believed her destination will be Brazil, where disturbances are quite possible, and where diseases lurk in the air. For these six hundred men there are hospital accommodations which will hold just two at a time. If three men are sick enough to go to hospital, two can be taken to the 'sick bay,' or hospital, and the other one can be thrown overboard, but in no event can he be taken to the sick bay, because there is only room for two there at a time. This sick bay is at the extreme forward part of the ship, with the anchor chains making music through great tubes at the head of the inclosure, and with the dynamite room on the immediate right. Back of the sick bay is what is called the surgical 'operating room.' It is a bath-room. They put a board over the bath-tub, and that is the operating table."

## THE REGULATION OF MEDICAL PRACTICE IN OHIO.

THE medical profession of Ohio assembled in convention at Columbus, on December 21, for the purpose of adopting a bill to regulate the practice of medicine in that State. The meeting was largely attended and composed of representatives from local societies, embracing members of the various schools of medicine. Several bills had been framed in advance and were presented for consideration. The bill adopted for presentation to the Legislature "provides for a State board of medical examiners, composed of seven members, who shall control the issuance of certificates granting the right to practice medicine, surgery, and midwifery. All the expenses of the board are to be paid by fees, fifteen dollars being charged for the examination of physicians, surgeons, and midwives who do not hold a diploma granted by a reputable medical college. This examination is to be made annually, and in case of failure to pass the annual examination, a second examination may be given, but in no case shall the examination fee be returned. All practicing physicians and midwives are required to register their diplomas with the board, and their certificates in the office of the county clerk in the county of their residence. The fee for diploma registration is placed at five dollars, and that for registration of certificate one dollar and a half. Authority is granted the board of examiners to designate medical colleges from which diplomas will be accepted as reputable, and those medical colleges not up to a standard determined by the board. A permanent secretary at $1,500 a year is provided for, and the board is required to meet twice a year." Ohio has laws regulating the practice of pharmacy, dentistry, and veterinary surgery, and it is to be hoped that an act governing medical practice may receive early inscription on the statute books of that State.

## A PHYSICIAN'S GIGANTIC SCHEME.

DOCTOR JOHN T. NAGLE, of New York, registrar of vital statistics, has announced a novel suggestion for furnishing work to the unemployed. It consists in building a transcontinental boulevard between the Atlantic and Pacific, each State through which it would pass to contribute to the expense of the enterprise. This grand midway plaisance is advocated by the doctor in the following terms: "I feel sure that gigantic as would be the scheme, it would pay in the end. Such a boulevard, laid out with a macadamized roadway and with ornamental trees along its walks, would certainly enhance the value of property in its immediate vicinity. It would furnish a driveway for the owners of fast horses all over the country, and the bicycle riders would be there by the thousands. Engineers will tell you that the idea is practical, and that the cost would be nothing compared to the benefit that would accrue from its construction."

## A NEW DENTAL DEGREE AT THE UNIVERSITY OF MICHIGAN.

AT the final meeting of the board of regents for the year just closed, the dental committee reported in favor of the request of the dental faculty that that department confer the degree of master of dental science for a three years' course, and doctor of dental science for an additional year's study in advance work. The creation of the fourth year's course is to be a new feature in the dental department, to be optional with the students and to be given by professors now in the senate and without any additional expense to the University. For the three years' course the degree conferred will be Master of Dental Science, and for the four years' course Doctor of Dental Science. The board discussed the matter as to changing of the title, and the effect it would have among the profession on those who have already graduated, and then referred the matter back to the committee for further investigation. The committee recommended the change and it has been authorized.

## ELECTION OF OFFICERS FOR HARPER HOSPITAL.

THE trustees of Harper Hospital, Detroit, held their annual meeting January 8, and the following officers were elected: President, S. M. Cutcheon; vice-president, J. L. Hudson; secretary, Bryant Walker; treasurer, C. A. Black; chief of staff, E. L. Shurly. M. C. Strong was reappointed superintendent and Mrs. L. E. Gretter principal of the Farrand Training School. The following additions to the medical staff were made: Consulting physician, Doctor Charles Douglas; attending physicians, Doctors D. S. Campbell and J. J. Mulheron; consulting oculist, Doctor L. Connor; attending oculist, Doctor G. E. Frothingham, junior; neurologists, Doctors C. W. Hitchcock and David Inglis; assistant laryngologist, Doctor C. D. Anderson; gynecologist, Doctor W. P. Manton.

## A NATIONAL LEPER HOSPITAL.

DOCTOR WALTER WYMAN, surgeon-general of the Marine Hospital Service, recommends the establishment of a national hospital for lepers. He says there are indications that point to the spread of this disease in the United States. The existence of a number of cases in various cities and country districts has been noted by the doctor, and the local authorities are loath to acknowledge and properly deal with the malady because the lepers, if their existence were generally known, would become a burden and a terror to the community. The report stated that decisive steps should immediately be taken to prevent not alone its introduction from southern countries, but its spread from cases now here, and recommended the segregation of leper sufferers in a national hospital as the most effective method of insuring this desideratum.

## ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

A LETTER directed to the undersigned by the secretary-general of the Eleventh International Medical Congress and dated December 19, 1893, contains the following communications: "American members will pay on the English, French, and Italian railways single fares for double journeys, and will obtain a reduction of 20 per cent. on fares for Italian round-trip tickets. The documents required for their identification will be sent to you in January, and Americans intending to visit the Congress will have to apply to you for them. Full particulars concerning the journeys will accompany the documents. Messrs. Thos. Cook and Son, London, Paris, Rome, and Naples, should be applied to for accommodation and for tickets for the excursions at Rome, Naples, and to Sicily. Such excursions will be arranged at Rome under the guidance of Mr. Forbes, member of several scientific societies and correspondent of *The Times*—for Naples, three days, including Vesuvius, Pompey, Capri, Sorrento, Castellamare, Bajae, et cetera—for Sicily, ten days from Naples, including Messina, Taormina, Catania, Girgenti, Siracusa, Palermo, and return to Naples. The fares for members of the congress will be considerably reduced and comprise hotel accommodations, carriages, guides, boats, et cetera—about 70 francs each, for the three days, and 285 francs for the ten days. Full particulars concerning these excursions will be contained in a leaflet to be added to the instructions and documents for the journey." From former communications the following are herewith quoted: "The members' fee is five dollars, that of their wives or adult relations two dollars each. Checks or money orders may be sent to Professor L. Pagliani, Rome, Italy. Credentials have been promised in the near future. When they arrive (none were received last year), they may be too late for many who have started or are about to start. The undersigned, who is not informed of the cause of delay, proposes to supply in as official a form as he thinks he is justified in doing, credentials which are expected to be of some practical value. The North German Lloyd has promised to recognize them. It is suggested, besides, that a passport may increase the traveler's facilities. Only the North German Lloyd (22 Bowling Green) and the Compagnie Générale Transatlantique (3 Bowling Green) have thought fit to grant any reductions to Congressists. The reductions on Italian railways are available from March 1 to April 30." A. Jacobi, M. D., 110 West Thirty-fourth Street, New York.

## MINOR INTELLIGENCE.

WYOMING will erect a public hospital for miners.

THE insane asylum located at Kalamazoo, is crowded with patients.

FRANCE recorded 8,410 suicides during 1890—6,576 males, and 1,834 females.

THE University of Minnesota has inaugurated a four-year medical course.

THE medical staff of the Brazilian navy has revolted and joined the insurgents.

CHANGE OF ADDRESS.—Dr. J. J. Quinn from 233 to 200 Congress street, east, Detroit.

DOCTOR YOUNGHUSBAND has been appointed a member of the Detroit Board of Health.

THERE are over 12,000 volumes in the medical department of the Newberry Library at Chicago.

A BUST of Professor N. S. Davis, of Chicago, is on exhibition in the Art Institute of that city.

THE eclectics in Georgia have defeated the bill to regulate the practice of medicine in that state.

SMALL-POX is prevalent in Reading, Pennsylvania, over 600 cases having occurred there to date.

DOCTOR W. J. CORBUS, a pioneer physician of Isabella county, died at Mount Pleasant, December 19.

DURING the months of September, October, and November, 210 deaths occurred from typhoid fever in Chicago.

THE Baptists of Boston have decided to found a hospital to be conducted under the auspices of that denomination.

MONTHLIES MADE WEEKLIES.—*The Kansas Medical Journal* and *The Philadelphia Polyclinic* are now issued every week.

DOCTOR A. G. STRUBLE, of Shepard, died of the grippe on the 18th of December. He was well known in Isabella county.

DOCTOR RUSSELL REYNOLDS has been appointed president of the Royal College of Physicians vice Sir Andrew Clark, deceased.

THE Medico-Legal Society, of New York, held its annual banquet in that city on January 10. The attendance was large.

A WRITER in the *Deutsche Medicinische Zeitung* laments because German therapy is becoming too much "Americanized."

TUFT'S COLLEGE MEDICAL SCHOOL, of Boston, has begun its career with seventy students. It is a coëducational concern.

FIFTY per cent. of the applicants who have appeared before the Homeopathic Examining Board of New York have been rejected.

AFTER a service of 30 years, Doctor William Hunt, senior surgeon to the Pennsylvania Hospital, has resigned from the surgical staff.

SAN FRANCISCO will have a new hospital. The late Mrs. Johnson, of that city, bequeathed $6,500,000 to found a free hospital in that city.

THE British Medical Association will convene at Bristol on July 31, August 1, 2 and 3, 1894, under the presidency of E. Long Fox, F. R. C. P.

BEGINNING with the fall of 1895 Rush Medical College will require students to attend four full courses of lectures of not less than six months each.

THERE were 44,370 deaths in New York city during 1893—a death-rate of 23.4 in 1,000. Brooklyn recorded 21,380 demises—a death-rate of 21.6 per mille.

THE annual report of the sanitary officer shows that there were 705 cases of diphtheria in Bay City during 1893. One hundred succumbed to the malady.

DOCTOR ABRAHAM JACOBI, of New York, has been tendered the Chair of Pedology in the University of Berlin. The doctor declined the honor by telegraph.

THE Russian Government offers 50,000 roubles as an inducement to select Moscow as the place for holding the Twelfth International Medical Congress in 1896.

GEORGIA has five medical colleges. Medical archives record the demise of seven other meccas for medical teaching which existed in that state at various epochs.

THE Association of American Medical Colleges propose to adopt a rule enforcing the four years' course in the seventy-four medical colleges enrolled on its register.

THE Medical Society of the State of New York will hold its eighty-eighth annual meeting at Albany on February 6, 7, and 8—Tuesday, Wednesday, and Thursday.

THE action brought by Mr. Anthony Comstock against a firm manufacturing surgical tables, for sending indecent advertising through the mails, has been dismissed.

Victoria Hospital at Montreal was opened by Lord Aberdeen on December 2. This new edifice cost over $1,000,000, and was built by Lord Mount Stephen and Sir Donald Smith.

The first successful case of Cesarean section for placenta previa in the United States was performed by Doctor A. C. Bernays, of Saint Louis, Missouri, on Sunday, November 24, 1893.

Beginning with the session of 1895, the course of instruction in the medical department of the University of Minnesota will be extended to four years of eight and one-half months each.

During 1893 the receipts of the New York Academy of Medicine were over $16,000. The expenditures footed up $15,000, about $4,000 of which was spent for books, journals, binding, et cetera.

A congress to organize quackery recently convened in Paris. It was denominated a "National Congress for the Free Practice of Medicine," and comprised faith-healers, magnetizers, masseurs, and all sorts of irregular practitioners.

Owing to change in date of the meeting of the American Medical Association in San Francisco, the 29th annual meeting of the Michigan State Medical Society will be held at Lansing, May 3 and 4, 1894, instead of the first week in June, as heretofore announced.

Sir Andrew Clark, who died recently in London, bequeathed a legacy of $2,500 for founding a medical scholarship in the London Hospital. The doctor left an estate valued at $1,021,000 which, excepting the above, is to be divided among the members of his family.

In the United States between seventeen and eighteen millions of dollars are annually expended in theological education, while less than half a million is appropriated to medical education. In Canada these professions are endowed, respectively, $2,100,000 and $85,000.

The national quarantine bill prepared by the New York Academy of Medicine some time ago has recently been the subject of discussion in Chicago and Milwaukee medical societies, and reports adverse to the bill, on the ground that its scope is restricted, have evolved from these centers.

Thirty-four applicants registered for examination by the Army Medical Examining Board which recently convened in Washington. Only 24 of these took the examination, some failing to appear, and others being unable to conform to the requisite physical standard. Five candidates were successful.

Doctor S. D. Bradley, of Saint Clair, died from the effects of thc grippe on January 7. The doctor was a graduate of Bellevue Hospital Medical College, and located in Saint Clair about four years ago. He was highly respected, and had succeeded in establishing an extensive practice. A wife, to whom he had been married fourteen months, survives him.

Doctor Manuel Antonio Muniz, surgeon-general of the Peruvian army, has presented the Smithsonian Institute with a number of crania bearing evidences of prehistoric trephining. A fragment four inches long and one and one-quarter inches wide was removed from one of the skulls and the cavity produced thereby covered with silver. It is said the patient survived the ordeal.

THE senior class at Yale numbers 185 students, 54 of whom wear glasses for myopia. The members average 22 years of age, and 25 of them have been compelled to invoke aid to vision since the advent of their collegiate career.

DOCTOR ROSWELL PARK, of Buffalo, recently visited Detroit, and read an interesting paper on "Appendicitis and its Relations to Peritonitis," before the members of the Wayne County Medical Society. The doctor's visit was much appreciated, and his scholarly paper was received with approbation.

A LAW recently enacted in France restricts the title "Doctor" to physicians graduated in that country. Foreign physicians have been notified to remove the title from their door-plates. Retention of their practices will not be prohibited by this interference with title, provided they held certificates as health officers under the old regime.

THE anatomy of the horse's foot is receiving consideration by the Master Horseshoers' Association of Detroit. A series of monthly lectures has been inaugurated, and the prominent veterinary scientists of the city will impart instruction in this important subject, invoking the aid of illustrations when necessary to elucidate their descriptions.

THE German Hospital of Newark, New Jersey, was recently presented with an annex which has been designated the Trefz School for Trained Nurses. The cost of this generous gift is estimated at $20,000. It is a three-story building, contains a large lecture room, is equipped with training appliances, and has generous accommodations for 14 nurses, besides furnishing ample space for a general storeroom for the hospital. A German lady of Newark is the donor of this munificent present.

A GENEROUS GIFT.—Professor Senn has donated to the Newberry Public Library his collection of medical works, valued at $50,000. The collection is probably the most valuable in the country. The collection was mainly got together by the late Professor Baum, of Göttengen, and contains several rare and antiquarian volumes for which the Royal Library of Berlin offered fabulous prices. Chicago has now probably the best medical library in the country, with the exception of Washington.

A FOUR-YEARS' COURSE AT JEFFERSON MEDICAL COLLEGE.—At a meeting of the faculty of Jefferson Medical College, held on January 18, 1894, it was unanimously resolved to institute a compulsory four years' course with the session 1895–96. This step was taken in order that the large clinical service of the Jefferson College Hospital (350 cases a day) might be utilized to the fullest extent in carrying out the desire of the faculty to provide advanced medical education of a practical character.

NEARLY 5,000 persons received treatment in the Presbyterian Hospital of New York during the past year. The ambulance calls numbered 1,800. The daily occupancy of beds averaged 155 as against 133 the preceding year. Ten thousand six hundred and twenty-six patients were treated at the dispensary. The total number of days of treatment in the hospital proper was 55,500, involving an expense of $58,063, or $1.02 per day for each patient. The hospital was enriched during the year by a legacy of $217,000, derived from the estate of Mrs. Mary Stuart.

THE Woman's and Child's Hospital, of Syracuse, New York, caught fire on the 13th ultimo from a defective flue. The building was damaged to the extent of about $4,000, but was insured for sufficient to cover all losses. Great care was exercised by the management in the removal of patients and no accidents are recorded.

A DISASTROUS fire visited the University of Maryland on the 2d ultimo and totally destroyed Practice Hall. This building had recently been enlarged, and contained the finest dissecting rooms and laboratories to be found in Baltimore. It will be rebuilt during the present year. The old University building caught fire, but the flames were extinguished before great damage was sustained. The losses were excessive, but no interruption in college work was suffered.

# RECENT PUBLICATIONS.

## REVIEWS.

### A THEORY OF DEVELOPMENT AND HEREDITY.*

A GENERAL consideration of the physical facts bearing upon development and heredity is furnished in the volume before us. It is a singularly lucid presentation of the case from the Darwinian stand-point, as opposed to the delightful, though somewhat fanciful speculations of the followers of Weissman. Doctor Orr makes a very strong plea in favor of the transmissibility of acquired variations through sexual selection rather than by natural selection. The strongest part of his argument is based upon his consideration of the inherited impulse,—the tendency dwelling in the incipient organism as a potential energy, which to some extent independent of the environments impels an organism and determines its specific characteristics. This inherent impulse is imagined as the equivalent of the conserved energy stored in the nervous system, the result of repetition and association of stimuli. The inherited impulse, which takes the place of the continuous germ-plasm in the conceptions of the Weissmanians, is an accumulation by the power of nervous association of the results of long continued repetition of the reaction of living matter to the forces of the environment. This law of repetition and association may be considered the crux of Doctor Orr's theory of development, a theory which, while containing nothing singularly new in its particular analysis, becomes suggestive in the extended spirit of its application.

The theory of Weissman, requiring, as it does, the transference from one generation to another of an exceedingly stable substance with a definite molecular and a chemical constitution, is a fascinating explanation of perplexing phenomena, but a study of the life-histories of the protozoa scarcely warrant the elaborate doctrines based upon the soma. The division of organized matter into two such distinctly different acting substances as the germ-plasm and the body-soma, is one which will assuredly require ingenuity of hypothesis to maintain.

Doctor Orr's contribution to this interesting theory will well repay perusal. Physicians should be especially interested upon this subject, the concrete manifestations of which beset us at all points.

* By Henry B. Orr, Ph. D., Professor at the Tulane University of Louisiana. Price, $1.50. Cloth. McMillan & Company, New York and London, 1893.

## INTERNATIONAL CLINICS.*

The third volume of the third series of "International Clinics" uphold the reputation already attained by this successful venture in the field of medical literature. The reader will find contributions from the most celebrated names in American and English medical science. The lectures are all what they purport to be, clinics, and reflect the spirit of the hospital and amphitheatre.

* A quarterly of clinical lectures. By professors and lecturers of the United States, Great Britain, and Canada. Edited by John M. Keating, M. D., LL. D., Judson Daland, M. D., J. Mitchell Bruce, M. D., F. R. C. P., and David W. Finlay, M. D., F. R. C. P. J. B. Lippincott Company, Philadelphia.

## MANUAL OF PHYSICAL DIAGNOSIS FOR THE USE OF STUDENTS AND PHYSICIANS.*

A carefully prepared work on physical diagnosis is one of the requirements of medical students. The publishers have issued a second edition of Doctor Tyson's work upon that subject. In addition to what is usually found in such manuals, a quantity of information regarding pathological observations for bacilli, and examinations of the gastric contents, is inserted in the present edition, making it one of the most useful books of its kind.

* By James Tyson, M. D., Professor of Clinical Medicine in the University of Pennsylvania, et cetera. Pages 241. Second edition, revised and enlarged. Philadelphia: P. Blakiston, Son & Company. Price, $1.50.

## A TREATISE ON MEDICAL JURISPRUDENCE OF INSANITY.*

Doctor Mann's "Treatise on Medical Jurisprudence" combines the medical and legal aspect of the problems he discusses in such a way as to make his work equally valuable to the lawyer and the physician. It is an enlightened exposition of the subject, and will, it is hoped, tend to clarify the benighted atmosphere in which the subject of insanity is still invested. It is to be hoped that the legal luminaries of the author's own State will be brought to modify their notion of the insane state and the prevalent doctrines of responsibility. The custom of regarding a man to be legally criminal and deserving of punishment because he has sufficient reason to know the act he is committing is morally wrong, is not one that can be harmonized with physical conceptions of mind. The Supreme Court of the State of Michigan was very creditably among the first to put itself on record, in the case of Blackstone *versus* The Standard Life and Accident Company, in favor of insanity being regarded a physical and not a mental disease, a matter of fact to be determined by medical experts, and not a question of law to be decided by legal tests and maxims. In many diseased conditions the reasoning powers are intact as in mania, paranoia and melancholia, but the subject of these disorders may be a victim of delusions or hallucinations which should render him legally irresponsible. It is to the elucidation of this subject that Doctor Mann mainly devotes himself in his manual, and it is to be hoped that his work will tend to the adoption of a more humane and enlightened jurisprudence in his own State, and in the many others the judgments of which are apt to be modelled after its decisions.

The manual before us is among the most useful of its kind, as it quotes a large number of typical cases, illustrating various phases of the subject of which it treats.

* By Edward C. Mann, M. D., author of "A Manual of Psychological Medicine." Matthew Bender, Law Book Publisher, Albany, New York.

## SURGERY.*

An admirable compendium of the principles of surgery in a terse and concise form is added to the series of student manuals now being issued by Messrs. Lea Brothers & Company. The present number is larger than its twelve companion volumes, and is richly illustrated by about one hundred and fifty engravings. Its popularity among students seems to be assured.

* By Bern B. Gallaudet, M. D., Demonstrator of Anatomy and Clinical Lecturer on Surgery, College of Physicians and Surgeons, New York; Visiting Surgeon Bellevue Hospital, New York: and Charles N. Dixon-Jones, M. D., Assistant Surgeon, Out-patient Department Presbyterian Hospital, New York. Being the final volume of The Students' Quiz Series edited by Bern B. Gallaudet, M. D. Duodecimo: 291 pages, 140 illustrations. Cloth, $1.75. Philadelphia: Lea Brothers & Company, 1893.

# REFERENCES.

## LITERARY MENTION.

New Edition of "The National Dispensatory."—Physicians and pharmacists will be interested to learn the fact that the new edition of "The National Dispensatory" is almost ready for publication. Upon its first appearance fifteen years ago a very large edition was exhausted in six months. The characteristics which secured this immediate recognition were its authoritative accuracy, its completeness, and the convenience with which desired information could be found owing to the exclusion of obsolete matter. These features have been carefully preserved in the successive editions, of which five have been demanded at brief intervals. The work contains the latest and ripest knowledge of that pharmaceutical savant, the late John M. Maisch, who had practically completed before his death the sections reserved for himself. He had confided the remainder of the pharmaceutical portion to Professor Charles Caspari, junior, who occupies the Chair of Pharmacy at the Maryland College of Pharmacy in Baltimore. The therapeutical department has been brought thoroughly abreast of the time by Professor Alfred Stillé, M. D., who has included critical statements of the value of even the newest remedial agents. A most suggestive "Therapeutical Index" is provided, giving practical suggestions under the various diseases arranged in alphabetical order. This, together with the "General Index," contains the vast total of 25,000 references. "The National Dispensatory" covers by authorization the new United States Pharmacopeia. Though the new edition of the Dispensatory contains at least 100 pages more than its predecessor, it will probably be maintained at the same low price in view of the certainty of a large and growing demand. It contains many new tables, lists and descriptions of new processes and tests, and will be a work of indispensable value to all who have to do with any of the medical sciences.

A System of Legal Medicine.—A Complete Work of Reference for Medical and Legal Practitioners by Allen McLane Hamilton, M. D., of New York, and Lawrence Godkin, esquire, of the New York bar, assisted by thirty collaborators of recognized ability, will soon be issued by E. B. Treat, of New York. It will comprise two royal octavo volumes of about 700 pages each, fully illustrated. The great need of a Standard American Work on Medical Jurisprudence has long been felt; and this work gives abundant promise of being just what the medical and legal profession have so long wanted. Every department will be thoroughly and reliably treated.

# MEDICAL PROGRESS.

## MEDICINE.

### SIGNIFICANCE OF THE EXCESSIVE SECRETION OF URIC ACID.

Doctor Herter believes that the deposition of amorphous urates in a sample of urine is pretty reliable evidence that uric acid is in excess, and the probability of this is increased if the density of the urine is less than 1.025. Unfortunately, we cannot conclude that urine which does not deposit urates does not contain too much uric acid. The early separation of uric acid as such from the urine, however, gives no real reason to think that it is present in actual excess. Every acid urine protected from putrefaction will deposit most of its uric acid in time. As a normal standard, is taken urine in which the proportion of uric acid to urea is about 1.50. When it rises to 1.40 uric acid is to be regarded as being excreted in excess. At 1.35, the excess is to be considered large; 1.30 is a very great excess, and higher than 1.20 is never found. The author regards an excess of uric acid as commonly due to disorders of digestion. Acute disorder of gastric or intestinal digestion temporarily increases it. A very large meal, the use of alcohol, or a large amount of sugar, act in the same way. He regards uric acid as formed by the breaking down of nuclein largely in the liver and spleen. Its excess does not give us information about a particular morbid state or diathesis, but rather indicates the existence of a defect in general nutrition that is, perhaps, commonly induced by the existence in the blood of toxic substances formed during the process of digestion. This being the case, such terms as "uric acid diathesis," and "lithemia," as commonly used, are incorrect and misleading. It does not seem likely that uric acid has much to do with chronic nephritis, since it appears to be rapidly and readily excreted by the kidneys. An increase of uric acid in the urine does not mean that the patient is suffering from the effects of an excess of it in the blood. For patients showing such a tendency, the wisest plan is to continue a mixed diet, in which all classes of food are represented, allowing as much starchy food as is consistent with the avoidance of uric acid excess. The amount of uric acid excreted gives an objective basis for deciding the value of the line of treatment pursued. If a certain course reduces it to normal, it may be regarded as satisfactory. If, after several days, it fails to do this, it should be changed. It is extremely doubtful whether drugs given to eliminate uric acid really do so. Herter's own experience with piperazine led him to think that the trivial increase in uric acid reached after its use was to be attributed to slight disorders of digestion. He believes we have been attaching a too serious significance to uric acid in its relation to disease, and that the view that it is in any sense a factor in disease, except in a purely mechanical way, is destined to die out wholly.—*The New York Medical Journal.*

## SURGERY.

### A PLEA FOR THE SLOW AND GRADUAL EXHIBITION OF ANESTHETICS UNTIL THE "FIRST STAGE," OR STAGE OF EXCITEMENT, HAS BEEN PASSED.

In your esteemed *New York Medical Record* of October 28, 1893, pages 573 and 574, there appeared an article by Doctor A. M. Adsit, of Hastings, Michigan, which well deserves to be written in enduring letters of gold upon the minds and memories of all physicians and surgeons—and this mode of administration should be emphasized by all teachers in our colleges—concerning the only proper and humane manner of administering anesthetics.

For any one to speak of that "whereof he knows" he must have had personal experience, not in anesthetizing others only, but having had another place him under the influence of an anesthetic.

From my reading, experience (of thirty years), and interchange of opinion touching this subject, I am positive that a very large majority of my professional brethren deem it essential—more especially in the administration of ether as an anesthetic—for the immediate and remote safety of his subject, that he must produce an anesthesia as rapidly as possible. This is almost tantamount to asphyxiation.

Doctor Adsit very truly says: "To avoid these bad effects (the initial disturbance of inspiration, preventing the proper aëration of the blood, and, as a result, we have the flushed face, the distended veins, the coughing, the jerky, catching respiration, and I add, that horrible dyspnea, and its concomitant sensation, that you are powerless to exhale the irritating ether vapors already inhaled, and the feeling that your heart will burst from over distention, the increased flow of mucus, and the wild struggle for liberty), two rules must be observed: (1) begin the administration with the air lightly charged with ether; (2) always permit all the air necessary to sustain life comfortably." Physicians seem to forget that neither chloroform, ether, nor any other anesthetic can be substituted for air. "There is no good reason why a patient does not require as much air while taking an anesthetic as at any other time. If you think that they secure the needed supply of air, place a cone over your own face and permit some one to hold it down tightly for five minutes."

Now this is not overdrawn, for I would much prefer the cone being pressed down tightly upon my face for five minutes, and take my chances for the small amount of atmospherical air, than to have that modicum surcharged with the vapor of ether or chloroform.

All of us probably have at times been able to anesthetize children while asleep, but to enable us to do so, we had to dilute the anesthetic with air freely at first, and administer it slowly, gradually increasing its strength, that no disturbance of the patient should occur.

If in thus seconding the mode of slow and gradual exhibition of anesthetics —which my personal experience enables me to do—I shall influence some of my brethren to substitute this method for the rapid and sudden manner generally employed, and shall thereby save some poor mortals this greater suffering and shock than at times the operation performed proves to be, I shall not have pleaded in vain.—Doctor J. B. Richardson in *The Medical Record.*

## AN EPIDEMIC OF PRIAPISM.

Doctor Meynier, a French army surgeon, has recently published a curious bit of medical experience. A company of troops *en route*, having halted for some time at El Hacaiba, the men were nearly all seized with priapism and prolonged and painful erections. Considering that an absence for some time from a garrison town might be the cause, the surgeon ordered light diet and flaxseed tea. The condition, however, became steadily worse. The erections continued throughout the company, and the men began to complain of great lassitude and dryness in the throat. Finally many had marked hematuria. Careful investigation disclosed the real cause of the trouble. During their leisure the men had been hunting frogs at a neighboring stream. The poplar and willow trees along the banks were found to be thickly covered with coleoptera of the family of cantharides meloe. Chilled in the early morning they fell by thousands into the water where they were gladly and greedily devoured by the frogs—which latter gave similar pleasure to the soldiers. The taste of the flesh was in no way injured, but its effect upon the genito-urinary system of the soldiers was disastrous. The removal of frogs' legs from the bill of fare put an end to the curious epidemic in a few days.—*The Boston Medical and Surgical Journal.*

# GYNECOLOGY.

## HYSTERECTOMY.

At a meeting of the Société de Chirurgie, on December 6 (*Rev. Gén. de Chir. et de Thér.*, December 7), Doyen, of Rheims, presented a communication embodying the results of 250 hysterectomies performed by him in recent years. Since January 1, 1893, he has done 172 abdominal operations, including 90 hysterectomies, 18 by the abdominal and 72 by the vaginal route. Of the total number of 250 hysterectomies, 66 were abdominal and 184 vaginal. Of the vaginal hysterectomies, 38 were for cancer (16 of the body of the uterus), 22 of the cervix, with 4 failures; 53 for fibroma, with 4 deaths; 93 for inflammatory lesions, with 7 deaths. In most of the unsuccessful cases the patients were in a cachectic condition. The 66 abdominal hysterectomies included 6 incomplete operations for malignant tumors, or fibromata complicated with uremia or intestinal obstruction, all unsuccessful; 4 extirpations of the gravid uterus (3 Porro's, successful, and 1 partial hysterectomy, done on a patient *in extremis*, unsuccessful); and 56 for fibromata. In the latter series the pedicle was dealt with by the external method in 27 cases, with 4 deaths; as one of these deaths was due to ante-operative septicemia it should be deducted, leaving 26 cases with 3 deaths, a mortality of 11.5 per cent. The pedicle was entirely returned in one case, which was successful. Among 28 cases treated by Doyen's own method there were 4 deaths; deducting 2 in which the failure had nothing to do with the operation, this leaves 26 cases with 2 deaths, a mortality of 7.6 per cent. The author maintains that in the case of large tumors, total abdominal hysterectomy, with vaginal treatment of the ligamentous pedicles, is the method to be preferred.

## OBSTETRICS.

### SHOULD TWO LIGATURES BE PLACED ON THE CORD?

**Trépant** (*Gaz. des Hôp. de Toulouse*, August 12, 1893) objects to ligature of the cord on the placental side. He believes that it favors retention of the placenta. In 68 cases of double ligature he observed 4 retentions; in 146 where one ligature was applied, the cord being divided on the placental side, only 2 retentions followed. Besides, Trépant found that the placenta was not so quickly expelled when two ligatures were applied. He maintains that the hemorrhage which occurs when the cord is divided after single ligature, diminishes the volume of the placenta, and thus aids in its expulsion; the uterus is also stimulated to contract. De Roselle confirmed Trépant's experience. Fournier noted that Budin observed in 1875 that the placenta was more readily expelled when the placental side of the cord was not tied. Bernard, on the other hand, distrusted this practice, as the hemorrhage might be dangerous.

## THERAPEUTICS.

### THE TREATMENT OF TUBERCULOUS PLEURISY.

**Doctor William Osler** states that the indications are two-fold: First, to limit and control the exudate and to promote its absorption. In the early stage it is sufficient to allay the pain, if severe, with opium; to reduce the fever, if high by sponging, and to keep the bowels freely opened. It is doubtful whether the salicylates deserve the confidence which many claim. While fluid remains in the chest it is for the good reason that it cannot get out, owing to blocking of the lymph paths. Absorption from the pleura goes on, chiefly if not entirely, from the costal layer. Good results are seen from putting the patient on a dry diet and giving brisk saline cathartics. Diuretin, when it acts, is useful in the same way. If at the end of ten days the exudate persists, and is at the level of the fourth rib in the erect posture, aspiration is advisable, and this may be repeated in a few days if the fluid reaccumulates. There are no greater risks in the tuberculous than in the simple sero-fibrinous cases, and it is very important to relieve the lung early of the compression to which it is subjected by any large quantity of fluid. The risk of the compressed lung becoming the seat of tuberculosis is not very great; more serious is the danger lest it should become bound down by such firm adhesions that it cannot expand. Gentle counter-irritation of the skin is probably beneficial in these later stages, stimulating the lymphatics of the costal pleura. In chronic sero-fibrinous effusion with thickening of the membranes, the fluid reaccumulates rapidly, and aspiration may have to be performed many times, and pulmonary gymnastics should be practiced. If the exudate be purulent the case should be transferred to the surgeon for thorough drainage. The second indication is to improve in every way possible the general nutrition of the patient, so as to favor conditions promoting the healing of the tuberculous process. No doubt, as in pulmonary and peritoneal infection, many instances of tuberculosis of the pleura recover, and leave no more damage than that associated with slight thickening of the membrane. A life in the open air, regular habits and exercise, a nutritious diet, and the use of the remedies which promote in every way digestion and the assimilation of food, should be advised. —" Transactions of the **Massachusetts** Medical Society, 1893."

## THE THERAPEUTICS OF GLYCOZONE: COMPOSITION AND CHARACTERISTICS.

GLYCOZONE is defined by its discoverer, Mr. Ch. Marchand, to be a stable compound, resulting from the chemical reaction that takes place when chemically pure glycerine is submitted, under certain conditions, to the action of fifteen times its own volume of ozone, under normal atmospheric pressure at a temperature of 0° centigrade.

The necessity of using chemically pure glycerine is imperative, as a presence of the water or other foreign matter in the glycerine causes the production in the resulting compound of formic acid, glycerine acid, and other secondary products, that have a harmful effect upon animal tissues.

Glycozone has a pleasant, sweetish taste. Being hydroscopic it must be kept in tightly corked bottles, and as long as it is kept in this condition, it does not deteriorate at a temperature of even 110° Fahrenheit.

*Antagonists and Incompatibles.*—Glycozone, like pero xide of hydrogen is a powerful oxidizing agent, although its action is not as rapid or as energetic in this respect as the latter compound. Consequently, we cannot safely prescribe it combined with any other drugs or chemical substances. Contact with metallic utensils decompose it. We must therefore use glass or hard rubber vessels and syringes when administering it.

*Physiological Action.*—When taken into the mouth and stomach, glycozone causes a feeling of warmth. It excites a flow of saliva and stimulates the gastric secretions. Being hydroscopic it attracts to itself water from the surrounding tissues but not with sufficient power to effect harm. This property is due solely to the glycerine base which enters into the composition. In very large doses, one or two ounces, it causes a feeling of distress in the epigastrium and is followed by loose, copious, watery stools, which are accompanied by severe cramps.

No effect is noted on the kidneys, the liver or the heart. Glycozone is undoubtedly slowly decomposed in the stomach, ozone being liberated and the glycerine uniting with the water from the tissues. The morbid elements with which it comes in contact probably hastens this decomposition, and in so doing are themselves oxidized and destroyed. The free ozone in the stomach resulting from the decomposition of glycozone aids in the digestive process by its presence.

*Therapy.*—Glycozone is, in the opinion of the writer, the best known agent for the treatment of gastric ulcer. It is also one of the best remedies for the treatment of the stomach, catarrh or chronic alcoholism, and for chronic gastric catarrh from other causes. It is excellent for atonic dyspepsia, and for acid dyspepsia. The writer has seen very gratifying results from its use in these distressing maladies.

In catarrhal and other stomachic diseases except gastric ulcer, the remedy is best administered in one or two teaspoonfuls in a wineglassful of water immediately after meals. In the case of gastric ulcer the dose and dilution should be the same, but it is better to give it when the stomach is empty, an hour or so before meals.

Glycozone has an excellent effect when used internally in cases of diphtheria. For this purpose a tablespoonful of glycozone is given in a wineglassful of water every three hours. As it is perfectly harmless it may be used without apprehension. The following treatment is excellent in cases of membranous croup, The nose, throat, mouth, pharynx, and larynx should be sprayed copiously every two hours or so with a mixture of one ounce of Marchand's peroxide of hydrogen (medicinal), with four to six ounces of water.

The membranes are readily destroyed, and by using this remedy freely, their reproduction is prevented. Then one teaspoonful of water of glycozone, diluted in a wineglassful of water, administered three times a day, prevents any disturbance of the stomach and regulates the bowels.

Remarkable benefits may be derived in the treatment of diseased conditions (ulceration and chronic inflammation) of the rectum and lower gut, by enemata containing glycozone, and for this purpose nothing exceeds the following formula:

| | | |
|---|---|---|
| ℞ | Glycozone, . . . . . . . . | ℥j |
| | Water, lukewarm, . . . . . . . | ℥xij |

This should be mixed immediately before using and administered with a hard rubber syringe once daily. It is frequently desirable to use a smaller amount than the above mixture. The proportions 1 to 12, however, should be maintained. In cases of fistula-in-ano and of rectal ulcerations low down, an ounce of lukewarm water containing a drachm of glycozone administered once or twice daily soon effects good, and in cases of ulcer, pure and simple, may be expected to radically cure the diseased condition.

*External Uses.*—After the cleansing of any diseased or suppurating surface by peroxide of hydrogen (medicinal), the application of glycozone stimulates healthy action and hastens the cure. For this purpose it has no superior in the entire range of therapeutics. It tends to check the discharge of irritating unwholesome secretions and to prevent the infection of the sore by pathogenic organisms. Its action in this respect is explained by the fact that it is both powerfully antiseptic and stimulant.

*Follicular Pharyngitis*, chronic coryza and ulcerative stomatitis are all benefited by frequent applications of glycozone. As an application to ulcerated cervix-uteri and in tumefied conditions of the cervix and uterus it is far superior to pure glycerine.

In these cases, and for the cure of leucorrhea, the remedy should be applied on small rolls of lint, or absorbent cotton, the vagina having first been thoroughly washed with an injection of peroxide of hydrogen one part, water four parts. This procedure should be repeated twice daily.—Cyrus Edson, M. D., in *The Times and Register.*

## PHYSIOLOGY.

### THE LOCALIZATION OF PURE WORD-BLINDNESS.

DEJÉRINE and VIALET (*Compt.-rend. hebdom. des Séances de la Soc. de Biologie*, N. S. 9, t. v. Number XXVIII, page 790) have reported the case of an intelligent and cultured man, sixty-eight years old, who presented absolute verbal blindness both for letters and for words. There was loss of the comprehension of musical signs—musical blindness—while the ability to read figures and to calculate was preserved. There was no sign of verbal deafness, and no indication of difficulty in articulate speech. There was no mind-blindness and no visual aphasia. The power of mimicry was retained, as was also the ability to write spontaneously and upon dictation. Transcription was, however, imperfect and difficult. Motility was preserved, as was also general and special sensibility and the muscular sense. These symptoms had been present for four years. Death occurred suddenly, paraphasia and total agraphia having existed for two days without a sign of verbal deafness, and general intelligence and the power of mimicry remaining intact. Upon post-mortem examination an area of recent red softening was found in the inferior parietal convolution and angular gyrus of the left cerebral hemisphere; while areas of old, yellowish atrophic lesions were found in the lingual lobule, the fusiform lobule, the cuneus, and the apex of the occipital lobe, with secondary degeneration in the splenium of the corpus callosum, and pronounced atrophy in the optic radiations. The right hemisphere was perfectly intact. Upon histologic examination profound alterations were found in the posterior portion of the lingual and fusiform lobules, particularly in the collateral fissure. All of the white matter of these convolutions was destroyed and replaced by cicatrical tissue. The lingual lobe was apparently the less profoundly affected, though on microscopic examination its white fibres were found to be almost entirely disorganized; at the level of the lower lip of the calcarine fissure, however, a portion of the calcarine stratum had withstood the process of destruction. Advancing toward the cuneus the cortex progressively resumed its normal appearance. These characters indicated that the lesion was least pronounced at the level of the lower lip of the calcarine fissure, and was especially localized to the fusiform and lingual lobules. The lower portion of the ventricular cavity was likewise involved in the process of softening. The tapetum, the optic radiations of Gratiolet, and the inferior longitudinal fasciculus of Burdach were entirely destroyed. The lesion became gradually less marked toward the outer wall of the ventricle. All of the structures in the descending branch of the calcarine fissure participated in the softening. From the anatomic findings in this case and from physiologic considerations the deduction is drawn that the lower portion of the inferior longitudinal fasciculus of Burdach contains physiologically differentiated fibres that connect the visual zone with the zone of language.—*The American Journal of the Medical Sciences.*

## PATHOLOGY.

### THE PARASITIC PROTOZOA OF CANCEROUS TUMORS.

In an interesting article in the October number of *The Journal of Pathology and Bacteriology*, Messrs. Ruffer and Plimmer continue the discussion on the parasites of cancerous tumors. To the account of their further researches are appended numerous colored plates illustrative of the microscopical specimens examined by them.

As viewed in the light of present experience, the parasite is a unicellular organism existing chiefly in the protoplasm of the epithelial cell, though occasionally found within the nucleus. It has a nucleus (or, at all events, a body which resembles the nuclei of other protozoa) whose structure varies, and whose micro-chemical reaction is such as to enable us to differentiate it not only from the nucleus and nucleolus of the epithelial cell which it has invaded, but also from the invagination forms concerning which so much discussion has recently taken place.

Observations on the parasite have been made with both hardened and fresh specimens; for the former method, osmic acid, chromic acid and Fleming's solution being employed. Of the staining media used, most satisfaction was obtained from the employment of hematoxylin with cochineal, and from Biondi's reagent. The parasite, however, may be examined in fresh specimens, when it is seen to possess a capsule and a translucent nucleus whose form varies from time to time. After the parasite has attained a certain size, it is observed to assume a radiate appearance, the striæ starting from the parasite itself, and not from its capsule. As regards the capsule itself, observations point to its being secreted by the invaded cell, leading recent workers to consider it as a protective act on the part of the cell. However, the relation existing between the capsule and the cell still awaits a more lucid explanation, inasmuch as the cell is frequently observed leading an existence outside, and perfectly independent of, its capsule.

The protoplasm of the organism may be homogeneous or granular. The nature of the granules, though not fully understood, are believed to be possibly due to the process of hardening under which the specimens have been treated. That they bear no relation to the process of reproduction seems conclusive, for neither do the granules possess any regularity of growth or development, nor have they been seen to burst the capsule or otherwise set themselves free.

Interesting results have also been obtained by these writers concerning the method of reproduction of the organism, in which they are enabled to refute the theories of falciform bodies found by Wickham, Sjöbring, Sawtschenko and others. The parasite is reproduced by fission, thus resulting in the formation of two organisms or a multiple of two. The nucleus first elongates, becoming oval, then divides into two exactly equal parts, which gradually separate from one another, though connected together for a long time by fine, thread-like filaments. The capsule has now a variable experience, though it generally divides contemporaneously with the nucleus, throwing out from opposite folds processes which form a septum between the divided halves of the nucleus. In one and the same cell may be seen several nuclei undergoing this process, which while thus reproducing numerous parasites in the same cell, yet allows to each its own capsule and an independent existence.

The article closes with a lengthy criticism of the theories of Arnold and Wickham concerning the endogenous cell formations, which the writers regard as merely invagination cells or leucocytes, and substantiate their views by reference to differential stains. In differentiating the parasite of the cancer cells from the other nuclei present, many staining fluids are employed. With hematoxylin and safranin combined, the nucleus of the epithelial cell absorbs the safranin, while that of the parasite takes on the hematoxylin stain; with hematoxylin and cochineal, the nucleolus of the epithelial cell stains blue, while that of the parasite becomes red. Such and many other differential points are mentioned in attempting to prove not only the presence of the parasite in the cell, but its distinguishing features and properties as opposed to the invagination forms of other authors. The subject of the etiological relation of the parasite to the disease is not dealt with, the writers awaiting the completion of their researches.—*The Montreal Medical Journal.*

## MEDICAL JURISPRUDENCE.

### CONTRIBUTORY NEGLIGENCE OF PATIENT AS DEFENSE TO CHARGE OF MALPRACTICE.

One of the most interesting decisions rendered for some time in a malpractice case, is that of the Appellate Court of Indiana in Young *versus* Mason (decided November 22, 1893, and just reported, 35 *The Northeastern Reporter*, 521). In this case the jury returned a general verdict for $1,000 in favor of the party claiming injury, and also returned answers to forty interrogatories submitted on behalf of the physician sued. Now answers to interrogatories override a general verdict when both cannot stand together, but not where they can be reconciled.

It was clearly shown by the answers in this case that the physician possessed fair and ordinary knowledge and skill, also that the manner in which he dressed and treated the injuries of this patient was, with one exception, such as is approved and followed by the most skillful surgeons in that vicinity, and which is approved by the standard authors and text-writers upon the subject of surgery. The exception was that the answers did not conclusively show that he exercised due skill and care in reducing a fracture near the wrist-joint. This act, with other acts of alleged negligence, it was charged, caused a certain stiffness of joints and the loss of the use of the arm, for which damage was sought. But the answers also showed that the patient took her injured arm out of the sling, contrary to directions, and placed it on her lap, window sill, and table, and that she also refused to allow the physician to use passive motion at the times, and to the proper extent.

Indulging every reasonable presumption and intendment in favor of the general verdict, and granting that the party who brought the action established to the satisfaction of the jury every fact put in issue, except when the answers to the interrogatories affirmatively and conclusively showed to the contrary, and giving a fair and reasonable construction to the facts, which were clearly, specifically, and without conflict or contradiction found in the answers, the court concludes that the negligence of the physician in failing to reduce the fracture near the wrist, and the refusal of his patient to allow him to subject the injured joints, at the proper times, to passive motion, concurred in producing the injuries for which recovery was sought.

The authority of other courts is quoted to the effect that "'the law has no scales to determine in such cases whose wrong doing weighed most in the compound that occasioned the mischief." "It is the duty of the patient to submit to the treatment prescribed and to follow the directions given, provided they be such as a physician of ordinary skill would adopt or sanction. . . . A person cannot recover from another for consequences attributable in part to his own wrong."

In consequence of the answers to the interrogatories showing, as stated, that the injuries complained of were certainly aggravated by the misconduct of the patient, the trial court, upon motion made in behalf of the physician, set aside the general verdict of the jury against him, and rendered judgment in his favor. This the Appellate Court affirms.

The law on this very important subject is further illustrated and summed up by the Appellate Court, as follows: Suppose a man fractures the bones in his leg below the knee, and calls a surgeon to treat the injuries, and the surgeon negligently fails to properly reduce one of the fractures, but in all other respects gives proper treatment, and the patient, in disobedience of the directions of the surgeon, negligently removes the bandages used as a part of the proper treatment by the surgeon, or is otherwise guilty of contributory negligence, and such combined negligence of the surgeon and patient unite in producing a shortness and stiffness of the leg, for which injuries an action is brought against the surgeon, can the patient recover? The patient is certainly not responsible in such case for the original negligence of the surgeon in failing to properly reduce the fracture, but this negligence of the surgeon unites with the subsequent contributory negligence of the patient in causing the shortness and stiffness of the leg. Now, it seems clear, under such circumstances, and the authorities cited, that the patient cannot recover for the consequent shortness and stiffness of the leg.

Where both the surgeon and patient are free from negligence, or where the surgeon and patient are both guilty of negligence, or where the surgeon is free from fault and the patient is guilty of negligence, no recovery can be had against the surgeon in any case. It is only where the surgeon is guilty of negligence and the patient is without negligence on his part contributing in any degree to such injuries that the patient can recover damages of the surgeon.—*The Journal of the American Medical Association.*

## MEDICAL MELANGE.

The Use of Cocaine.—(1) Amount of cocaine used must be in proportion to extent of surface it is desired to anesthetize. In no case should the quantity exceed one grain and three-quarters. (2) Cocaine should never be used in cases of heart disease, pulmonary disease, or in persons of highly nervous temperament. (3) In injecting cocaine, the intradermic method is preferable to the hypodermic. By injecting into, not under, mucous membrane or skin, the risk of entering a blood-vessel is avoided. (4) During injection the patient should always be in a recumbent position; in operations upon the nose and throat, the head should not be raised until anesthesia is complete. (5) It is of great importance that cocaine should be pure, since its combinations with certain other alkalies result in poisonous compounds.—*The Brooklyn Medical Journal.*

The Bacteriological Craze.—This is the age of germ rabies, and stark madness has overtaken the hygienists and the public with reference to bacterial infection. Every ounce of water we drink and every cubic foot of air we breathe is supposed to be scientifically assayed, and if more bacteria than the approved minimum are found, we are threatened with terrible consequences. The joke of the matter is that the people who are the victims of the craze do not seem to be able to see farther than their noses. They are in agonies of apprehension lest their milkman may have diluted his liquor with bacteria-laden water, and they excessively excite themselves if the cubic contents of their sleeping-rooms is below the scientific minimum; but they pay no regard to the fact that, from morning to night, they are imbibing monstrous doses of bacteria through other media. They never think of the danger of carrying about their person a banknote which has been bosomed for unlimited time by a reeking fishwoman or costermonger—they box themselves up in a theatre or concert-room packed with inconceivable myriads of germs of all sorts of diseases—they suck grapes which have passed through an endless series of dirty hands, and they smoke cigars which have been lately grasped between the lips and fastened with the spittle of, perhaps, a phthisical tobacco-worker. Lastly, they will cool their glass of champagne at the most *distingue* dinner-party with the ice recently frozen off a ditch which is little better than a cloaca, and they trouble not themselves about its bacteria befoulments. We notice we are moved to these observations by the fact that this latter point has been taken up by the Parisian hygeinists, and that laws are being made to control the sale of dirty ice. It has been clearly established that much of the ice used in the most aristocratic cafés and clubs is taken off ponds impregnated with every describable abomination, and that when this ice is melted myriads of bacteria of every form of virulence are found in a state of activity. We are not to be understood to discourage precaution against the use of foul water or foul air. It is well to be clean, even though we cannot be of spotless purity, but the bacteria hobby is, at present, being ridden to death.

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### CYSTITIS.*

By FREDERICK W. ROBBINS, A. M., M. D., Detroit, Michigan.

[Published in The Physician and Surgeon exclusively]

The subject of my short paper has not been before us for discussion during my membership in this body, but every practitioner of medicine, however inexperienced, recalls to mind cases of cystitis that he has been called upon to treat. Some of these cases are handled with little difficulty, others tax the skill of the best and even then not seldom with little benefit to the patient. If the members of this society will, to the remarks that I offer, add the result of their experience, this portion of the evening's work will be of value.

It is not an unusual thing to receive in our consulting rooms, patients who come to be treated for inflammation of the bladder. Upon examination of the urine in these cases, we find no pus cells or very few. These are not cases of cystitis, for inflammation of the bladder always produces pus except in those occasional cases where from tuberculosis or other processes, inflammation may exist in the outer coats of the bladder, not yet having extended to the mucous membrane. What may these cases be? Most frequently, perhaps, such irritation as the patient complains of will be caused by crystals of calcium oxalate or a highly acid urine with or without any crystalline deposit. A stone may be present in the bladder causing irritation and even blood with no inflammation. Bladder irritation may be simply a neurotic condition due to various causes, often perhaps to unhealthy sexual hygiene in those individuals whose minds are constantly perverted regarding sexual matters.

Cystitis, although spoken of as a disease *per se*, is usually, if not always, present secondarily to some other disease or condition. We look upon these conditions as holding a different relation to the cystitis than was the case only a few years ago. Note a few causes of cystitis given by Keyes in 1886:

"Traumatic: all injuries from without—without or with fracture of the pelvic bones, wounds during labor, injuries from within—as during the use of instruments, by stone or pedunculated tumor, irritating injections without any coöperative cause are capable of lighting up acute cystitis.

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*Read before the Detroit Medical and Library Association.

Extension of neighboring inflammation: gonorrheal cystitis and that attending prostatic inflammation, pelvic abscess, cellulitis, peritonitis, tubercle, cancer, et cetera.

Medicinal: from cantharides, cubebs and turpentine.

Specific: diphtheritic, puerperal or septicemic conditions, et cetera."

Instead of taking these divisions at their face value, we will go back a little and consider the basis of all inflammation, namely, the microbe. Whether we yet accept the microbe as the origin of cancer, lung fever, scarlet fever, or other specific diseases, I have no doubt that here we all ascribe the production of pus, that is inflammation, to one or more of a small number of microbes, and believe that either from within or without these germs must come in contact with the mucous membrane of the bladder before we can have cystitis. Before the scientific world came to consider the microörganism as much more to be feared than serpent or wild beast, sound and catheter were recklessly carried into the bladder, possibly warming them a little and applying microbic grease, and how often was this done with no ulterior effect? Often we have treated a patient week after week for stricture without his ever complaining of severe pains or frequent desire to pass water. On the other hand the passage of an antiseptic instrument for an instant only has set up a severe cystitis. Again, into a healthy bladder have been thrown cultures of staphylococci or streptococci without doing any harm. Now, then, if we would accept the theory that inflammation is caused by the germs, in order to explain the foregoing facts we must also bear in mind that the ground must be in good condition to absorb the poison; not a healthy, resisting mucous membrane, but one that is diseased or congested. We do not think the injuries produced by instruments the cause of cystitis, but the injuries will cause a congestion and if surgical dirt is present we will have cystitis. On the other hand a disinfected urethra or bladder can be operated upon, the mucous membrane lacerated by clean instruments, and no pus be produced. KEYES says that "irritating applications are capable of lighting up cystitis." I have often carried very irritating fluids into the neck of the bladder, yea, even to the point of cauterization, and produced no inflammation. A bladder may contain a stone for years, producing extreme irritation, and still there be no cystitis. When, however, irritation from any cause exists producing congestion, there is great danger from infection. In this same article of DOCTOR KEYES, he speaks of cystitis from the extension of prostatic inflammation, pelvic abscess, cellulitis, et cetera, and especially of gonorrheal cystitis. Now, different ideas are held by authorities on gonorrheal cystitis: some say we may call the prostatic urethra a part of the bladder. If so, we may call posterior urethritis, cystitis; but if, as it seems to me, we should restrict the term bladder to the receptacle for fluid, we cannot call the posterior urethral inflammation, cystitis.

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Gonorrheal inflamation does not extend into the bladder. While the gonococcus is a pus producing microbe in the urethra, when brought in contact with the urine it is rendered inert or totally destroyed. In a severe attack of so-called gonorrheal cystitis, urine drawn carefully from the bladder will not contain gonococci. As a rule a few drops of silver nitrate solution, instilled every few days into the posterior urethra, will cure the cystitis, so-called, in a short time, the medicine not having entered the bladder. Sometimes, however, we do have true cystitis following gonorrhea, due to the transplantation of various germs upon the congested mucous membrane. Here we have a mixed infection and germs present which are not troubled by the acid medium of the urine. The inflammations kept up or produced by these other organisms may and often do extend into the bladder, most frequently exerting their effect in the region of the trigonum.

That these organisms for the most part find their entrance from without is readily understood; that this should be the case more frequently in the female than the male also goes without argument. How often it is that the physician is called to care for the recently married woman suffering bitterly from cystitis. A number of such cases comes at this writing to mind, and what better illustration can we have of the combined condition and cause existing, resulting in cystitis. No doubt in the leucorrheal discharges microbes have been present for months without being attracted to the urethra and bladder until the more or less severe congestion found in the earlier days of sexual life has produced just the condition for the extension of inflammation. Cold is also mentioned as the cause of cystitis, but cold only produces the congestion necessary, and cases to which this cause is attributed are principally females. From within also come the attacking germs, especially in elderly people. Cystitis often follows inflammation of some part of the kidney. Inflammation of neighboring organs or tuberculosis may attack the peritoneal coat first, then the muscular, and finally the mucous, and such cases are much more grave than those where the mucous membrane is first attacked.

Diagnosis must depend for the most part upon an examination of the urine. Pain is not a very important symptom; if we trust to it too many mistakes will be made. The mucous membrane of the bladder proper has no sensation; not so, however, with the prostatic urethra, and if it seems best to make an exact diagnosis between inflammation of the prostatic urethra and the bladder, the latter should first be thoroughly washed out with clear water and then a catheter be left *in situ* for a time. If, then, pus comes from the urethra and not the bladder, the urine drawn will be quite clear; if otherwise the urine will be, as previously, cloudy. In those severe forms of interstitial cystitis there will be a sense of pain over the pubis, in the back and down the thighs. When the urine contains pus, much mucus, crystals of ammonium and magnesia phosphates and bacteria, the diagnosis is easy. How about pus and bacteria with an acid urine and no crystals, or epithelium or other pathalogical elements? Most authors take it for granted that the urine of a cystitic is alkaline and that the crystals exist. Am I wrong in thinking that the condition just mentioned does often prevail? If the urine of a prostatic contains a few casts with much pus, mucus and bacteria, but still remains acid, should we conclude that the pus comes from the kidney or bladder? If it is noticed that the pus cells often form little groups of four or more, this in itself points to disease of the kidney, for pus formed on the wall of the bladder and thrown directly into the volume of the urine will exist as separate independent cells. Tubercular cystitis is not a rare disease. Whenever hematuria is present and pain is severe, especially on passing instruments, we have a right to expect tuberculosis.

A year or two ago I presented to this society the bladder of a boy whose history was nearly as follows: Aged thirteen; early boyhood healthy; had been in the habit of bathing excessively in the river; had been failing in health for nearly two years; had cough and frequent diarrhea: had lost much flesh and for some weeks had frequent attacks of hemorrhage from the urethra; passed water every half hour; urine contained much pus. An examination with the cystoscope showed the bladder wall of an even grayish appearance, with none of that vascular arborescence which we find so distinctly, especially in the region of the trigonum, during an acute inflammation. During examination he suffered bitterly, and even the softest instrument passed for the sake of washing out the bladder always caused severe pain. Such pain is the rule in tubercular cystitis. After death both lungs were found consolidated, both kidneys contained pus cavities and the bladder wall was exceptionally thin. Often in tubercular cystitis tubercular masses can be felt in the testis, along the cord, and more frequently, perhaps, in the vesicular seminales or prostate. In this case, however, no local deposit was found and the cystitis, if tubercular, was produced from within and a part of the general tubercular process.

Another case was treated for a time in the outdoor clinic of Saint Mary's Hospital. Patient, male, about thirty years of age, had undoubted tubercle of the lungs. Sometime previously an abscess had slowly developed in the neck. He had had urethritis several times and at time of examination a cystitis. The cystoscopic picture was very similar to that of the previous case, with the addition of numerous bags of tissue floating in the urine and attached to the gray surface.

In neither of these cases was the tubercular bacillus sought after.

The prognosis, although in most cases good, still depends almost entirely upon our ability to remove the cause of congestion. If the congestion can be relieved the cystitis, although very severe, may disappear. If this is not possible, any treatment will prove of little avail, and even if not existing when first seen, the disease is apt to spread by way of the urethra, and suppurative or surgical kidney follows.

In every case, then, we should study to remove the cause of congestion. In many of these cases, as in newly married women, morphine in some form is our sheet anchor. Here, no obstruction or foreign body being present, the irritation is soon relieved by an opiate, the microbes are expelled per urethram, and the patient is well. Often mucillaginous drinks and alkalies will aid in producing the desired result. This is also the plan of treatment best suited to those acute attacks of cystitis, prostatitis and posterior urethritis following gonorrhea. In conjunction with the local rest produced by anodynes, the advantage of general rest in bed must not be forgotten. Usually in the cases mentioned it will not be necessary to resort to bladder injections, but if the cases do not show a satisfactory improvement, we may proceed to wash out the bladder once a day with a normal salt solution, saturated boric acid solution, or acetate of lead, grains one to one ounce, or nitrate of silver. We must, before injecting the bladder, be perfectly sure that we are not dealing with a posterior urethritis, for if we are, and the catheter is passed into the bladder, it is immediately seen that we are not medicating the parts mostly involved, and it were better if we either instilled a few drops of our medication into the posterior urethra or filled the bladder with our medicated solution, withdrawing the catheter and allowing the patient to pass off the contents of the bladder himself. Often after crushing a stone severe cystitis will follow, fragments of stone remaining, producing severe congestion. In such cases, however acute the inflammation, the operator must at once remove all fragments and thoroughly disinfect the organs. If improvement does not then soon take place, it seems to me the complete rest of the parts must be brought about by peritoneal or suprapubic drainage.

Whenever cystitis adds to the suffering of the prostatic, no time must be lost in resorting to the catheter in the attempt to withdraw all of the often foul residual urine, and carefully washing out the bladder with any warm, clean solution. It is well known that owing to the thickening of the bands of muscular fibers in the walls of the bladder, in its attempt to overcome any obstruction, whether that of an enlarged prostate, or narrow stricture, or a stone, the inner surface presents a sacculated condition, and while necessary for the bladder to be completely drained, it may be difficult so to do, and here I think the suggestion of **Sir Henry Thompson** a good one—to throw into the bladder the fluid in several portions of say one ounce each, instead of using a large amount at a time. The reason for this is self-evident. After once catheterization has been begun in the prostatic, it should be kept up at regular intervals to prevent the congestion that follows an over distended bladder.

In chronic cases of cystitis where the capacity of the bladder is very much diminished, say to one, two, or three ounces, should we attempt systematic forcible injections with the end in view of increasing its capacity? Our answer would depend upon the kind of hypertrophy existing. If the hypertrophy is muscular, due to overwork—as in the case just mentioned,—no harm and often good will follow such treatment. On the other hand, when the hypertrophy is due to interstitial inflammation, there is a thickening of the connective tissue, a weakening of the muscular structure: dilation here would be impossible and danger of rupture of the bladder ensue.

In tubercular cystitis all local treatment is as a rule followed by only bad effects. If, however, I should hereafter come across tuberculosis of the prostatic region, I should try to carry out the treatment of **Ultzmann**, by carrying small iodoform suppositories to the prostatic urethra by means of the port-remedie. However, as a rule we must remember that local treatment in tuberculosis is only followed by pain and irritation, and attempt must be made to build up the physical condition by every means possible.

There is a class of patients not uncommon, especially among elderly people, where a paretic condition of the bladder exists. These cases need treatment which consists of strychnia and other tonics internally, galvanism applied to the neck of the bladder, together with careful and regular catheterization, or what seems to me better, continuous suprapubic drainage. For these cases as well as others which might be mentioned, the instrument which I now show you has proved itself of great value. It has been made for me by **Mr. Hartz**, of Milburn, Williamson & Company. In principle it is modeled after an instrument used by **Herr von Dittel**, of Vienna. It, in properly selected cases, has the advantages of easy insertion (chloroform not being necessary), of completely draining the bladder, of cleanliness, and of being entirely under the control of the patient or attendant.

# DIET IN DISEASES OF CHILDREN.*

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WHEN we look at the reports of the health office of the city of Detroit, we find the number of deaths that occur in children under one year old is about one-fourth the whole number of deaths in our city, and when we examine farther we find that the number who die between one and five years is over one-eighth of the whole number, and this is the result in mostly all large cities. Putting these together we find that more than one in every three born dies before reaching five years old. It is to be regretted that, for our purpose, this table does not classify indirect as well as direct causes, but this is impossible except in hospitals. Not having an American classification at hand, I refer to the very excellent one of DOCTORS MERCI and WHITEHEAD. They show that seventy-nine per cent. of the children dying at the Clinical Hospital for Children in Manchester, England, suffered from defective or faulty nutrition, which either caused or contributed to their deaths. While this ratio is undoubtedly too high for our city, yet it shows what bad results are obtained by intelligent people, and what we may also suffer from to a large extent, and indeed do suffer from greatly.

When we know that this defective or faulty nutrition is nearly always the result of causes external to the child rather than internal, we realize what an important matter it is to give due attention to these causes. While the hygienic surroundings and clothing, in our changeable climate, are powerful factors in producing disease, we cannot but realize that errors in the stomach and bowels cause by far the greatest number of deaths in children under two years of age. Hospital reports show that thirty per cent. of the deaths among children are traceable to this cause. If we apply this percentage to the one hundred and eighteen who died in this city last month (October, 1893) under five years old, we have thirty-five children whose dietary contributed directly or indirectly to their death. But lest some may doubt the correctness of this application, let us apply the percentage to those seventy-six who died under one year old, and we find twenty-two children who, statistics claim, died directly or indirectly from improper feeding during October, 1893, in Detroit. The figures for the months of June, July, August and September nearly always show a much higher percentage of this class of sickness. With such figures before us, does it not behoove us to look closely into a cause which, largely preventable, directly or indirectly, carries off more human beings than diphtheria and scarlet fever combined, and nearly as many as does phthisis, diphtheria and scarlet fever together?

Infant feeding naturally divides itself into three great classes: (1) those who are nursed entirely at the breast of mothers or wet nurses; (2) those who are hand-fed partly and nursed partly; (3) those who are hand-fed entirely.

With the first class, or those who are entirely nursed from the breast for the first year or nearly that long, we shall find, of course, least trouble; but nevertheless a careful observation of all cases will show the necessity for careful attention to directions, much more frequently I think than we as physicians recognize, or parents can be made to believe. Unfortunately the public, from practice, have come to believe that nothing can be done for a cross child; that broken sleep and consequently exhausted mothers are only too often an essential accompaniment of maternity, and in many cases also of paternity; that green stools are entirely unavoidable; that the presence of curds in the stools must occur occasionally and will do no harm; that continued vomiting is a healthy sign; that persistent gaseous eructations from the stomach and wind colic need only peppermint, gin, aniseed or paregoric to give relief. In other words, many parents, and I fear physicians also, believe that the child is only suffering from "the three months' colic or crossness," and nothing can be done to relieve it; consequently they must fight it out as best they can without making any effort to prevent it and thus save sleep and comfort to the parents and good health to the child. Many children suffer this way all the time they nurse their mothers, while a still greater number suffer this way from improper hand feeding.

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* Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

It is amazing how some children live entirely on their mother's milk till nine or twelve months old, and yet suffer continually from colic and its accompanying gaseous eructations, green or curdled stools and loss of sleep. Many others suffer for shorter or longer times in the same way. The question arises, why should this be so? and is there any harm to the child from so doing?

When we stop to contemplate these facts we cannot but feel ashamed of the ignorance of the community who so willingly and blindly and cruelly refuse to give to the little helpless child, a week, a month, or two months old, the same help and privileges which the older children and they themselves claim and readily receive for ailments no more severe, and lasting only days as compared to the weeks and even months of suffering of those dependent little babes. Why is this the case? Simply because the children seem to live in most cases in spite of the continued poisoning to which they are subjected. I say "poisoning" because the deaths that slowly occur in some cases prove to be such and nothing less. I say "poisoning" because the pinched and hollow cheeks of many, the atrophied and soft flesh of others, and again the large heads, emaciated bodies and loose skins of more can call it by no other name. Who is there among us who would not hasten to remove or change food that we saw keeping us poor, in pain and losing flesh steadily, or at least not gaining as rapidly and comfortably after sickness as we know nature and good health demand?

Physicians are not to blame for this entirely, and in many cases are not to blame for it at all. Inheritance is unfortunately the factor which hands down the idea from parent to child that nothing can be done for it; also the sweet consolation that many children are this way for three months or longer, but it will go away of itself. Certainly if a physician is not consulted he cannot prescribe. But do physicians prescribe for these cases always, even when consulted? I fear not. There seems to be too little interest taken in solving the cause of the trouble in most of these cases. Why it should be so I cannot understand, and so long as we neglect this important matter and do not give it the attention it requires, so long will the public consider it of no importance and relegate it to peppermint, aniseed, gin, whiskey and other condiments.

The tables of DOCTORS MERCI and WHITEHEAD, of the Manchester hospital for children, show that out of one hundred and fifty children, entirely dependent on their mother's milk till nine months or more in age, 62.6 per cent. were well developed, 23.3 per cent. were partly developed and fourteen per cent. were poorly developed. What stronger argument do we require for the necessity of paying close attention to the nourishment of the young babe, even when wholly depending on its mother's milk for nourishment? It is our duty to educate our mothers to the knowledge that crossness, vomiting and purging are not necessary features for success in a child. On the contrary, we should diligently instill into our young mothers especially the great dangers to development and possibly life, which are likely to follow such symptoms in their children. Who is there among us who does not frequently see pale, anemic babes, slowly cutting their teeth months behind the correct time; some with large, ill-shaped heads; many with crooked limbs, or not able to walk till eighteen or twenty months old, and then only feebly; and yet others showing unmistakable evidences of tuberculosis and scrofula? Do we not know that these conditions are the direct result generally of this miscalled "crossness?"

Why does the baby cry and fret? Because it loves to do so? No, not any more than its parents love to do so. The natural condition of all children is one of comfort, happiness and smiles, and people should be taught to realize this, for with this comes success in growth and development, and the greatest protection against inherited weaknesses internally, as also exposures externally, that can possibly be obtained. When we, as physicians, recognize our duty to be educators of the public in questions of health, as also healers of them in their infirmities, then will we be fulfilling our responsibilities in an honest, intelligent and appreciable way to the families who entrust their infirmities to our care, advice and treatment.

For what do the community employ us? Is it not to better their health? Do you think that they expect us to stand quietly by while they commit errors, the fruit of which they and their children will reap in years to come? Do you think that the tubercular father or mother will ever forgive you for allowing them to innocently injure their offspring, either in diet, clothing or education, when by a little seasonable advice you could have saved them this distressing realization? And look at that rickety child with the large humpy head; also how irregular is the shape of that head—lopsided, flat or hollow on top, with bulging forehead and broad across the ears. What pride will that elegant father and beautiful mother feel in such a daughter as she grows up? Perhaps her skirts will in future years hide her knock-knees or bow-legs, but how will the art of the milliner or hairdresser cover up the enormities of the head? Many parents would rather see her dead, than have such a child, a source of comment to friends and strangers and distress to themselves. And then to realize that all this might have been easily avoided had their medical adviser been consulted soon enough, and when consulted done his whole duty.

Can we, as physicians, be doing our whole duty when such things occur? I think not. Do parents want to raise animated objects only? Certainly not. For what do we live if it is not for our children? In what do we take pride if it is not our children? Does the word *child* express all of that in which we are happy and proud? Think of it for a moment, a child sickly and deformed, continually changing climate and physicians. For what? Simply that health which could easily have been saved to it by attention to its dietary during the first two years of its life. What parent can take pride and happiness out of such a routine of anxiety, attention and needed change, too often to end in death or prolonged ill-health?

Now, these things need not be in this free, beautiful, sunshiny country of ours, and it is our duty to prevent it. But you say, or some physicians may say, "We cannot prevent these conditions when we are not consulted about them." I can only say that we must be ready and able to relieve these unhealthy dietetic conditions, and the public will quickly appreciate the change and readily embrace its advantages. Just as I have commonly seen mothers in labor and their friends steadily resist instrumental assistance twenty-five years ago, so now do I find them not only willing but oftentimes clamoring for that assistance. This was merely brought about by education, and the same thing will be obtained in dietetics when physicians, thoroughly educated in this subject, industriously set before parents the great necessity of making the child's dietary a matter of the utmost importance. Then, and only then, will our newspapers cease to teem with advertisements of cheap baby foods, that have done and continue to do most in producing the unfortunate results above referred to.

To return to our subject—the children that nurse the breast and depend on it alone during the first year for support, experience and statistics show are by far the most successful. The tables of DOCTORS MERCI and WHITEHEAD show that of children wholly dependent on their mothers' milk to nine months or longer—

62.6 per cent. were well developed,
23.3 per cent. were medium developed,
14 per cent. were badly developed.

of those who nursed plentifully and were hand-fed also—

52 per cent. were well developed,
23.6 per cent. were medium developed,
20 per cent. were badly developed.

of children who had very limited breast milk and fed by hand the balance—

26.8 per cent. were well developed,
26.3 per cent. were medium developed,
45.9 per cent. were badly developed.

of children entirely fed by hand and no breast milk—

10 per cent. were well developed,
26 per cent. were medium developed,
64 per cent. were badly developed.

These tables would strongly impress us with the necessity of breast milk for success. That where abundant supply of this alone produces 62.6 per cent. of perfect children in Manchester, only ten per cent. are obtainable under hand-feeding. And the percentage steadily declines of perfect children as we increase the percentage of hand-feeding. These are strong facts to look at and teach a valuable result. These tables seem to have been carefully prepared with the determination to obtain all the information possible on this important subject. I think we can obtain better results in our sunshiny, less crowded country, but not by the use of patent foods.

If the best results are obtained by human milk, it becomes our duty to use it wherever we can obtain it, and when not possible to obtain it, to make a substitute as nearly similar as possible. One of the strongest reasons against hand-feeding is the fact that in it not only the quality of the food but the kind of food demanded by the child is largely ignored.

The child is born without teeth and with only the power of suction developed. This means liquid food for aliment, and also means animal food. It also means milk, as this is the only article, natural or manufactured, that supplies all the elements needed in the child's development in liquid form.

That animal food is the demand of nature is proven by the necessities in food for the support of life. Health and development require a combination of:—(1) Plastic or nitrogenous matters, to nourish the fleshy or muscular parts of the body. (2) Calorifiant or combustible matter, namely the hydrocarbons, to supply the respiratory process, to keep up animal heat and to provide fat for the body. (3) Mineral matters or salts to supply the bones and hold in chemical union, combination and action the solids and liquids of the body. Among the first are fibrin, albumin or casein; among the second, fats and oils, sugar and starch; among the third, lime, potash, soda, magnesia, in union with phosphoric, sulphuric, hydrochloric acids and many others. Singly or as a simple substance these are found in combinations of foods, but are not capable of supporting life alone, though found present more or less in all foods. Animals fed on any one of these different kinds alone will soon starve. All these elements are found in fixed proportions in milk, but the proportions vary with the source from which the milk is drawn, and very frequently vary from the same source.

Comparative anatomy teaches us that all young animals require animal food for some time after birth because it is supplied by the parent or some adventitious animal substance. Also because the young are unable to digest any other than animal food, on account of their anatomical and physiological construction. In many mollusca, gasteropoda, insects and batrachian reptiles, the mother produces with the egg a nidamentum to nourish the young after birth. Some insects feed on their surrounding envelope, others on the yellow substance lining the abdominal cavity for days after birth, as snakes and spiders. Birds mostly feed worms and fish to their little ones. Some predigest it partly, where grain is fed, and then disgorge into the mouths of their young, as pigeons, some sparrows, the grallatores and palmipedes, and by this means relieve the tender stomachs of their young from being abused and injured. Would that we had some protection for our young that would equally protect. Finally we come to the mammalia, who secrete milk itself, on which their young depend entirely for some time after birth.

Let us look at the anatomical and physiological construction of the child. It has no teeth or ability to masticate. There is no salivary secretion till the child is two months old, and then it is only rudimentary. The stomach is small and the alimentary canal short and very rapid in its action, resembling those of the carnivora. Had the child been intended to digest vegetable food, it would probably have been fitted up with a gizzard or more stomachs to do the work thoroughly, as in birds and animals. Evidently from the whole alimentary arrangment it was intended only to digest that which consumed the shortest time, and that we find from experience is milk.

Having arrived at this conclusion, can we then say, when asked about the diet of a child, "Oh! give it milk," and dismiss the subject as finished? Certainly not. We must go farther. This is where our skill and patience are continually taxed. Milk is, unfortunately, of very uncertain quality, even from the same source, at different seasons of the year, at different hours of the day, and from the different aliments consumed to manufacture it. Let us look at human milk. It is composed of eighty-eight parts of water and twelve parts of solids, and is alkaline in reaction. These proportions vary somewhat, as I have before stated. The water may be more or less, as also the solids, according to the food consumed and other influences. I. König, Forster, Meys, Harrington and others agree nearly enough on the following proportions in the solid constituents and watery amounts also of—

HUMAN MILK.

| | |
|---|---|
| Reaction, | slightly alkaline. |
| Specific Gravity, | 1028–34. |
| Water, | 87–88. |
| Total solids, | 13–12, |

and these contain, of—

| | |
|---|---|
| Fats, | 3–4. |
| Albuminoids, | 1–2. |
| Sugar, | 7.0. |
| Ash, | 0.2. |

Becqueral and Rodier, English writers, give the proportions of albuminoids higher and sugar lower, but the whole amount of solids about the same as American writers. It is generally admitted that the only milk obtainable in this country to substitute for human milk is that of the cow. Let us look at its composition as given by Doctor Harrington and other recent analysts.

COW'S MILK.

| | | |
|---|---|---|
| | Reaction, | acid. |
| | Specific Gravity, | 1030–36. |
| | Water, | 86–87. |
| | Total Solids, | 13–14, |
| containing, of— | Fat, | 4. |
| | Albuminoids, | 4. |
| | Milk Sugar, | 4.5. |
| | Ash, | 0.7. |

From this we see that there is a slight increase of solids over human milk, and that these solids contain an increased amount of albuminoids and ash with a diminished amount of sugar. In fact, the above proportions of cow's milk compare closely to some of the figures given by Becqueral and Rodier for human milk in 1879.

To apply these figures to our purpose, let me present to you figures obtained by analysis of milk in a wet nurse employed to take charge of a baby seven days old. They are prepared by Doctor I. B. Swift, of Boston, and quoted by Doctor Rotch. They show the great variations to which human milk is subject in the same person under different dietetic conditions and suggest the wide divergence that must often occur even in the nutriment derived from the mother.

| | *Two days before change of food.* | *Rich food for a month.* | *Food regulated and milk agreeing with infant.* |
|---|---|---|---|
| Fat, | 0.72 | 5.44 | 5.50 |
| Sugar, | 0.75 | 6.25 | 6.60 |
| Albuminoids, | 2.53 | 4.61 | 2.90 |
| Ash, | 0.22 | 0.20 | 0.14 |
| | 10.22 | 16.50 | 15.14 |
| Water, | 89.78 | 83.50 | 84.86 |
| | 100.00 | 100.00 | 100.00 |

Now, this milk at first agreed with the child as shown in the first column, but the rich diet to which the nurse had access now, and of which she partook freely, in about a month caused nausea and vomiting of strong, large curds like those of cow's milk. An analysis now shows the second column of figures, with the total solids increased to 16.50, and of this we find the marked increase in the fat and albuminoids. Reducing the dietary in quality and amount is followed by a secretion of milk agreeable to the child and on which it continued to thrive. A third analysis shows the solids now reduced in total, due almost entirely to the reduction of albuminoids, or casein mostly, from 4.61 to 2.90. The importance of reduction in this element casein, which forms the curd in the milk, cannot be over-estimated. While the amount of albuminoids, 2.90, is still high, it seemed to agree well with the child, and shows that the amount may vary considerably and yet make a successful food. When we compare these figures in the third column with those of cow's milk, we find the albuminoids less, the fat, sugar and ash higher. The latter of these, the ash or saline ingredients, should be less, but this excess does not interfere with digestion and is readily eliminated by the kidneys and bowels. The extra amount of fat over the ordinary amount in human milk is also thrown off by the alimentary canal without giving any particular distress to the patient. Analysis of feces shows large amounts of fats present at all times when the bowels are regular, and a constipated condition generally when there is a deficient amount of fat in the food. In fact I find greater success follows the use of animal fats in the constipation of children than in any strictly medicinal treatment. I feed them freely on butter, bacon or lard, allowing the bile and pancreatic fluids and absorbents to appropriate all they require for nourishing the child freely, and still have an excess to pass off through the bowels as a lubricant. This being the way superfluous fats are disposed of, we need not fear their presence in the milk, but rather look upon them as salutary.

The sugar in this third column, 6.50, though higher than the amount, 4.50, in cow's milk, is yet the normal amount in human milk.

If, then, we find in this wet nurse a simple reduction of albuminoids (casein mostly) from 4.50 to 2.90 makes the milk digestable, let us apply the same rule to cow's milk, which contains about four per cent., and we find like results.

Now, the difficulty comes in at this point, and, I think, explains largely the loose directions given for feeding children. We do not know the strength of the cow's milk we are feeding to our children, nor yet its peculiar qualities. For years I have been compelled to prohibit the use of cow's milk, manufactured in or near our city, for babes. Experience has shown me that it is frequently poisonous to them, and its continued use results in a rickety child, atrophy, or frequently death itself. Why is this the case? I can only say that milk-makers manufacture their goods out of the cheapest ingredients possible for the greatest profits. The cheapest foods in the cities are the waste products of the breweries and glucose factories, also distilleries, not forgetting plentiful applications of common salt. It may appear to some that the latter article, salt, is needed to cure the effete and rank character of the former articles, but I have been assured by a milkman that the salt has another aim—that of thirst, which causes the animals to drink water in large quantities and thus cause a greater rush of so-called milk. The frequently rancid and rotten odors of these foods as they are hauled along our streets make me think that the milk made of such stock should compare favorably only with pies made of rotten apples. This milk is not fit to use in any way, much less form the dietary of young children.

The milk made in the country is the best, not that honesty or honor are only found there, but because the cheapest food for the cows is the natural product of the farm in its first green or cured condition. The only difficulty is the distance from the city and the time needed to deliver it to customers, with the charges incident thereto. With the new and improved systems of removing the cream from milk, coupled with the large quantities of cream that are sold, we cannot but feel that a new danger confronts us, and that we may be feeding skimmed milk, the richest in albuminoids, to our children. Thus, while we are robbing them of the fatty elements, we are also indefinitely increasing their difficulties of digestion with the increased casein and salts.

Having secured good milk, which must not necessarily be from one cow only, but is preferable from a number, we must change it to agree with the composition of human milk as nearly as possible. Did we have nothing to modify but the chemical constituents above enumerated, we could probably succeed satisfactorily oftener than experience shows we do. We find the casein of cow's milk forms clots of a tough, fibrous character, difficult of digestion. To modify this clot many efforts have been made and continue to occupy the attention of the profession. We also find that there are certain volatile principles which chemists have not been able to analyze, but which are very patent in newly drawn milk. They disappear as the milk becomes aged and may by their absence contribute to our difficulties in feeding. We have also the biological character to keep in view. This is now remembered always by sterilizing, but some consider that the milk has lost life itself by not being delivered directly from the mamma into the child's mouth. So much does this pertain that in some European countries the child is taught to nurse directly from the goat, cow or such animal as is selected for its nourishment.

At present our efforts, in connection with sterilizing for fifteen to twenty minutes at a temperature of 160° to 175° Fahrenheit, are made principally in reducing the albuminoids and increasing the saccharine proportions of cow's milk, always retaining the full amount of cream. The albuminoids are reduced by diluting with boiled water, two times for a new-born child and once or less for older children. Then milk sugar or cane sugar is added sufficiently to bring the percentage up to seven—the amount in human milk. Before diluting, the milk should stand several hours in a cool place till the cream can be removed from it, then this must be returned, in proper proportion, to the diluted mixture, and all sterilized together to prevent the lactic acid fermentation. In this way the whole amount for the day can be prepared at once and placed in a cotton-stoppered bottle or bottles in an ice chest and used as wanted.

Doctor Rotch uses the following proportions:

| | | |
|---|---|---|
| ℞ | Cream (twenty per cent. fat), | ℥j½. |
| | Milk, | ℥j. |
| | Water, | ℥v. |
| | Milk Sugar, | ʒiij⅜. |

Mix and sterilize.

Doctor Meigs makes his proportions:

| | | |
|---|---|---|
| ℞ | Milk, | one part. |
| | Cream, | two parts. |
| | Lime water, | two parts. |
| | Sugar water (17¾ drachms milk sugar to one drachm water), | three parts. |

Mix and sterilize.

This is strongly alkaline, but can be rendered less so by using less lime-water.

Another plan, an old one, now recommended by Doctor L. Emmet Holt, is to set the milk in a tall glass vessel several hours and then remove the upper milk and cream together. This leaves the heavy milk, with casein, in the bottom of the jar. Doctor Holt directs that a quart of fresh milk be allowed to stand six hours in the tall jar, and then remove five ounces of the top cream and milk. This will contain twelve per cent. of cream and will stand two dilutions to reduce it to the correct four per cent. of cream in human milk. If the milk is of the standard richness of ten per cent. cream, this rule of Doctor Holt's will stand good, but otherwise the cream may be too great or too small. If too great the child's bowels will be loose; if too small they will be constipated. The cream may be increased or decreased accordingly by taking more or less milk with it. This mixture will now require the addition of sugar to make the regular seven per cent. required. Some favor milk sugar and some cane sugar. Doctor Holt prefers a thin gruel of barley, rice or oatmeal, and this should then be sweetened and added as the diluent instead of water, allowing two parts of this to one part of the top milk as the proportion in feeding.

Professor Chapin, Doctor Eilvart and Doctor Hudson C. Smith, all connected with the Children's Hospital, New York, favor, in recent articles, diluting with the barley or starch water rather than with plain water, but say that the starch must be converted into dextrine by heating with extract of malt for ten to fifteen or thirty minutes, and then to the boiling point before feeding. They claim that by this process the clot formed in the stomach is entirely homogeneous, showing none of the firm, hard clot formed by the addition of water alone. To prove this, Doctor Eilvart withdrew the food by a stomach pump a short time after feeding. Doctor Hudson C. Smith says that he has used the malt for almost a year to peptonize milk, with good success, among the outdoor patients of the Children's Hospital. This plan was originally introduced by Liebig.

This method of feeding and proving results by withdrawing the food from Nature's laboratory while active digestion is in progress, very decidedly upsets the conclusions arrived at by Doctors Rotch, Harrington and Townsend. They found rennet unreliable in their experiments in test tubes and used acetic acid. From their experiments it required five times the amount of water added to cow's milk to produce a clot homogeneous like the clot of human milk; and also they found the more barley, oatmeal, rice or flour starch was added to the solution, the larger and firmer was the clot produced. It will be very interesting to watch the results obtained by the profession generally as recommended by adding flour predigested with malt and water as a diluent for infant feeding. I regret that **Doctor Eilvart** makes no special mention of treating infants under three months old in this way. These directly opposite results, obtained by reliable and skillful scientists, again remind us of the great uncertainties which must beset all efforts to follow Nature's plan outside of the natural conditions in which she works.

This **Liebig** plan of predigesting with malt agrees with the results found by English writers, who recommend diluting the milk with bran tea. This tea contains a digestive ferment called cerealine, which lies next the covering of the grain, is dark in color, and when boiled with starch is found to digest considerable quantities of it. It also carries with it large percentages of phosphates of lime and soda, and chloride of potassium—salts largely present in good milk.

I have found the necessity of reducing the albuminoids almost invariable, especially with children under six months old. The sterilizing and sweetening must always be observed also, and the strict preservation of the proper quantity of cream cannot be overlooked without causing constipation and other bad results, frequently of the rachitic type.

One of our greatest difficulties is to contend with the unhealthy education of the public by the patent food manufacturers. They spend large amounts of money yearly in this channel and succeed in placing the stamp of imperfection in development on thousands of our growing generations yearly. Where the people are unable or unwilling to take the trouble of procuring the proper food, we must educate them how to supply the deficiencies in the food they elect to use. Some children seem to grow and thrive fairly well on any combinations of food and consequently need little attention. It is the one with delicate stomach who will tax your skill and patience to make it a successful grower.

Let us look at the analyses of the patent foods in the markets. These analyses, if correct, show that the same food varies greatly in composition, and this applies to all these different foods. Not only this but they vary greatly from human milk in the most important essentials. Nearly all of them contain starch of three to five per cent; the sugar varies, some having only half enough while others have too much; some carry dextrine; all are deficient in fat, the best of them having only about fifty per cent. of the correct amount and others only five per cent.; and the same deficiency exists in the albuminoids, some having only a trace of it. The deficiency in fats and albuminoids will very largely explain the errors in nutrition, slowness in development, waxy color, tardy teething, and errors in shape found in children made dependent on such food for subsistence. Those children enjoying good digestion generally have this dietary assisted largely by feeding from their parent's table and thus have the fats and albuminoids increased by the fragments of gravy, meat, cheese and butter given them daily.

Where I have children raised on any artificial food or condensed milk, I insist on their receiving butter regularly to supply the deficiency in fat and to regulate the bowels. I also direct that pieces of meat be given them to suck to supply the deficiency in albuminoids and strengthen the muscles, which are often very weak and poorly developed.

Of not less importance than the character of the food is the quantity given to a child daily. Very frequently parents will consult you about the crossness of the child. This may be during the first month or later on. The mother may have no milk, or only partly enough, as she thinks, for the child's wants, and she supplements by feeding extra.

To show the parents the error they are generally committing, I always ascertain the exact amount fed and the frequency of feeding. Having ascertained this I compute the full amount given in the twenty-four hours. I then ask the father or mother his or her own weight, which is usually ten to fourteen times that of the child, and show by this that to feed themselves in like proportion as they feed the child either one of them would require to consume from twenty-five to forty pints of liquid food daily. This argument generally appeals to their senses and assists materially in regulating the amount fed daily to the child afterward. Strange as it may appear, people of all classes make this mistake frequently, and by so doing cause immense dilatation of the stomach, with consequent weakness of its muscular walls and imperfect gastric fluid.

It is important always to regulate the exact amount of the food and the number of feedings daily in a baby. While there is no law absolutely governing this, yet the weight of the baby is the nearest guide we have. Certainly it must be followed rather than age. Many a child two months old will require as much food as another six months old, simply because it is the same weight.

PROFESSOR ROTCH, of Harvard, gives a scale of amounts needed in feeding an ordinary child, and also the frequency of feedings from birth to one year, when milk alone is used. This ranges from ten ounces during first week, given in ten different feedings of one ounce each, to forty ounces at a year given in five feedings of eight ounces each. European writers are more liberal in amounts, commencing with one ounce and increasing it rapidly up to two months and then more slowly till at a year old they allow sixty ounces daily. Their general estimates of amounts needed is more liberal than our American ones. I have found the amounts recommended by PROFESSOR ROTCH satisfactory, and when increased likely to cause indigestion and vomiting; even when the increase is very small in many cases this disturbance will be noticed.

The amount of first feeding per day is important, and the amount allowed—one ounce—is ample as shown by the actual capacity of the stomach in a new born child. DOCTOR TOWNSEND, of Boston, by actual measurement shows the capacity to be less than an ounce, but the elasticity of the walls will admit of distension and show greater capacity. This is clearly demonstrated by cuts in DOCTOR ROTCH's article in "KEATING's Encyclopedia," where the stomach of a rachitic child is shown dilated like a sack, the perpendicular diameter being one and a half times larger than the horizontal one, when it should only be one-half that of the horizontal one. This distension is produced by continued feeding of larger quantities than should be given to the child and always results in imperfect digestion and consequently imperfect nutrition and unhealthy growth, as is commonly shown in rachitic children.

In DOCTORS MERCI and WHITEHEAD's tables we find fourteen per cent. of the children fed on their mother's milk alone till a year old, poorly nourished. These are made up of the cross babies and should receive our attention. A great many different causes contribute to produce this result.

*Frequent Gestation.*—This will, in many women, reduce their vitality and strength. They are, not only exhausted by this, but by the labor incident to caring for numerous little children. In many this great toil coupled with broken sleep gradually undermines the health, impairs digestion and nutrition, and there is scarcely enough food consumed to support one life instead of two. Here nursing must be supplemented by feeding for success.

*Recurring Sickness, as Menses, Indigestion, et cetera.*—These are frequent sources of impure milk. The microscope will show in these cases colostrum corpuscles, which are difficult of digestion and cause colic, restlessness, vomiting and soft flesh. These cases frequently refuse to respond to treatment and may demand weaning as the only relief.

*Bad Hygienic Surroundings, Sedentary Life, and Irritable Disposition.*—These frequently keep the milk in an unhealthy condition. Lack of physical exercise in many means impaired health and poor milk. Sudden fright, and great outbursts of passion have been known to cause convulsions in children and even death. An irritable, cross woman is a difficult patient to prescribe for, but she should be taught to realize the harm such indulgence has on her milk. Such women should never be selected as wet nurses, neither should very nervous women.

*Syphilis and Tuberculosis.*—A syphilitic mother should never nurse a child. This disease contracted after the child's birth will effectually ruin the milk and also the child. The great uncertainties of contamination from tuberculosis should also prevent the milk of such parents from being used.

*Terror.*—This has been known to cause death in a few hours. ROUTH relates the case of a woman wresting a sword from a soldier about to strike her husband. She nursed her child after the fight was over. The infant soon stopped nursing, panted, and presently sank dead on its mother's bosom. The same thing has happened where wet nurses have been severely reprimanded. If these cases cause such direful results, we can well understand the irritating effects of minor degrees of mental disturbance.

*Irregular Feeding.*—Perhaps there is no cause so common as this in producing bad results. Analysis shows that milk varies greatly in quality according to the time it lies in the breast. This applies principally to the fat. Strippings or the last milk is always richer than the foremilk, and the longer the intervals between nursing the poorer is the quality of the milk. Many mothers have a cross child and to appease it are continually putting it to the breast, thinking it to be hungry. This perpetuates the crossness by giving the child indigestible fatty food all the time. Other mothers leave their children for irregular intervals and cause sickness by too frequent feeding after too long intervals, thus giving the two extreme qualities of milk. I had a case this year where a young mother ruined her child through too frequent feeding. She nursed it entirely from the breast and supplied its wants as frequently as demanded. Naturally crossness was the result and to appease it she continued night and day to give the breast to it at intervals of a few minutes or longer. When I was called the child was at seven months very rickety, large bosses of adventitious bone being thrown out on the frontal and parietal bones. The child suffered from laryngismus stridulus at each stool which was either constipated or loose. It had the characteristic waxy appearance, and the parents thought it a fine child, but did not like its color. It improved with regular feeding, but had measles at ten months old, took convulsions and died. I was called to another case in consultation this summer, where a large child ten months old showed strong nervous symptoms for several weeks—a twitching of the muscles of the neck and back. This child always nursed and always had green stools from two months old. Was a bad color. Never had laryngismus stridulus. Mother had plenty milk and nursed all her other children successfully. An attempt to feed the child caused laryngismus stridulus half an hour after my visit. The attending physician incised the gums over the two middle incisor teeth to relieve the nervous symptoms two weeks after and the child bled to death. Here the continued green stools should have demanded a change of diet, but the mother did not consult the physician about it till the nervous symptoms became severe.

*Food.*—There is no doubt that food varies the quality as also the quantity of milk. We have frequent proofs of this among the poor as also among the rich. Too poor food makes a like character of milk. Consuming large quantities of nitrogenous food, meat, eggs, milk, et cetera, with the idea of making plenty good milk, or to satisfy the appetite, makes albuminoid milk and a cross child. This must be avoided before any relief can come to the child.

*Medicines.*—Iodide of potassium, belladonna, iron, and colchicum have all been found injurious to the secretion of milk, lessening it decidedly. Saline purgatives do the same. All bitter remedies produce colicky milk more or less regularly.

# EXPERIMENTAL INVESTIGATION IN THE GIBBES-SHURLY TREATMENT OF PHTHISIS.*

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I have thought it may be of interest to the Society to have an account of a series of experiments, which I have made in a case of tuberculosis treated in the manner Doctor Shurly and I originated, with a view to determining the effect of the sputum when inoculated in susceptible animals at different stages of the treatment. I also wish to give a short account of another case now undergoing this treatment, and some experiments I have made with cultures of tubercle bacilli.

The first case was that of an assistant professor in the University of Michigan, who came to me for treatment on the 4th of February, 1892. The apex of his left lung was affected and also his throat, and this condition was diagnosed in Germany more than a year before he came to me. The sputum contained numerous tubercle bacilli. I commenced the treatment with an injection of iodine, and kept it up for a week, and then gave gold for a few days, and then alternated them, gradually increasing the quantity, but never during the whole treatment giving more than twenty minims at a sitting. The injection was given every day with one or two exceptions.

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* Read before the Detroit Medical and Library Association.

At the end of February there was a decided gradual improvement, and the expectoration had diminished in quantity. The tubercle bacilli were also fewer in number. The improvement continued steadily until March 7, when he caught cold, and the expectoration increased again, and so did the bacilli, but only for a day or so. On the 14th of March he felt much better. The expectoration was much less, bacilli fewer in quantity, and his voice was very much improved. He could talk for three hours without feeling his throat. This hoarseness had been his chief trouble, together with his increasing weakness. The improvement went on through April, and on the 29th I could only detect four tubercle bacilli in one specimen of his sputum. Soon after this they disappeared altogether.

During May and June he gained in every respect, his weight increasing five pounds in two weeks. I carried on the treatment until the 13th of July, when he said he felt perfectly well and required it no more. I gave during this time cod-liver oil and ammonia citrate of iron internally and Karlsbad salts as necessary.

He resumed his work at the University on the 1st of October, 1892, and carried it on without feeling any trouble from his throat, and his voice had almost recovered its normal character. In January, 1893, he was appointed professor in the state university of Colorado, and left at that time to fill the new position. He caught a bad cold going there from which he recovered without any untoward symptoms, and wrote to say he never felt better in his life or more capable of carrying on his work. Last summer he was thrown from his horse and had his left leg broken, and I told his brother when writing to him, to suggest his taking a tonic for a time. He wrote back to say that his brother had better take it himself, as he had no need of any medicine.

When I commenced treating this case, I determined to see what the effect of the treatment was on the sputum, as regards its power of affecting susceptible animals. With this view I inoculated two guinea pigs with sputum at the commencement of the treatment. One died in a short time from septicemia, the other in one month with a large abscess at seat of inoculation, enlarged glands in the inguinal region, and tubercles in the lungs, liver, and spleen.

A month later, March 4, I inoculated two more guinea pigs with the fresh sputum. One of these died on the 19th of April with tubercles in the lungs and spleen, but with no open sore at the seat of inoculation. The other was killed on the 29th of April and found in a similar condition. The third set were inoculated on the 16th of May, and both were killed on the 28th of June. One of these had a chronic abscess at the seat of inoculation, which did not communicate with the surface. The lungs were free from tubercles, also the liver. The second guinea pig of this series showed no signs whatever of any departure from the normal. At the end of May and twice in June I inoculated guinea pigs, which I kept for from six weeks to two months and then killed, and found no morbid changes in any of them.

From these results I gather that four months of our treatment had succeeded in rendering the sputum from this case innocuous.

I will now give a short account of another case, which I saw in consultation with DOCTOR WILLIAM WOOD, of Grand Rapids. He first sent me the sputum for examination, and I found it loaded with tubercle bacilli, and from the character of the sputum, I judged it was a favorable case for our treatment.

I saw this patient with DOCTOR WOOD on the 9th of December, and his condition was as follows: He was in the charge of a trained nurse. He could not speak except in a whisper, and he was so weak that I could not raise him up long enough to examine his chest properly. The examination could not be thoroughly made, as he was in such a condition of exhaustion he could bear very little interference of any kind. His temperature was 101°, pulse 120. He was expectorating about seven ounces of pus in the twenty-four hours. His family history was bad, and he was almost reduced to a skeleton.

Treatment was commenced on the 12th with five minims of the gold solution. This was followed by slight headache, and the same the next day, but not after this. The gold was gradually increased to ten minims, until the 19th, when five minims of solution of iodine was given. This was followed by nausea and vomiting, but this did not recur on the following day. The iodine was continued until the 21st, when I received my first report from DOCTOR WOOD and some fresh sputum. On examining this I found a marked diminution in the number of the bacilli. The expectoration also was reduced to three and three-fourths ounces in the twenty-four hours. Temperature was normal most of the time, but twice rose to 100 at night. DOCTOR WOOD, in his letter, said: "The cough no longer disturbs his sleep, he raises without difficulty, and is exercising freely about the house." The next report, up to the 27th of December, showed the expectoration to be three and one-half ounces in the twenty-four hours, temperature normal during the day, and 99.2 at night. DOCTOR WOOD said, in his letter: "The change of the patient for the better is in every respect remarkable. His speech is much improved, and he feels able to come down town." January 5, expectoration two and one-half ounces, temperature normal. DOCTOR WOOD said: "He is much improved in strength, voice, and general appearance, and the other day took a three or four-mile ride without harm." On the 13th of January the report was: "He is looking better, has more color, eats regularly with the family, and plays on the flute with considerable strength." The improvement in every way continued until the 30th of January, when I saw him again and examined his lungs. The right apex, which in the hurried examination I made at the first visit seemed to me to be in a state of consolidation, had cleared up and air was freely entering. The left apex was the seat of old mischief, and contained a small cavity. He had been steadily gaining strength and weight. The sputum showed throughout a steady diminution in the number of tubercle bacilli until the last examination on the 28th of January, when I could only find three bacilli in one specimen and none in another, and those I did find were poor half-starved looking specimens. DOCTOR WOOD will probably give a full report of this case at the annual meeting of the State Medical Association.

I will now mention some experiments that I have made with cultivations of the tubercle bacillus. I have been growing three series, all of which were originally obtained from the lungs and not from the sputum.

Series A has been growing now for about five years, and in March, 1893, had reached the thirty-fifth generation. With this I inoculated six guinea pigs in

March, 1893, and killed them in August of the same year, and in not one of them was there any morbid change or any sign of the site of inoculation. Before inoculating these animals, I made a number of cultures from the flask the guinea pigs were inoculated from, and they are growing now luxuriantly, although they have never had any special temperature, only the ordinary room heat. I made a careful microscopical examination of the organs in each case, and found nothing abnormal in any of them.

I repeated the same experiment with series B, which had been growing a little over three years, and had reached the twenty-seventh culture or generation, and I had precisely the same results.

Series C was not quite so old and had reached the twenty-third generation, when used for inoculation, and in two out of the six guinea pigs, two and one-half months after the inoculation, I found a sore at the seat of inoculation which communicated with an abscess in an enlarged gland. There were no morbid changes, however, in the organs of these two guinea pigs, or in those of the other four used in this experiment. All these series were tested at different times at an earlier stage of their growth, when they were found to be capable of producing morbid changes in the animals inoculated.

Similar observations have been made by DOCTOR DIXON, of Philadelphia, and others with the same results.

I grew these bacilli in different culture media at different temperatures, and I now have luxuriant growths of tubercle bacilli, which are absolutely unable to produce tuberculosis. I would ask the Society if this fact is susceptible of the same explanation which proved the so-called jequirity bacillus to be nothing but the hay bacillus, which falling into an infusion of the abrus precatorius, found a suitable pabulum and grew luxuriantly therein, or, if not, what is the explanation?

In 1882 I put on record a fact, which seems to me of considerable importance, that in cases of acute miliary tuberculosis, when the age of the patient, duration of the disease, clinical signs and symptoms and post-mortem experiences were precisely similar, the microscope showed that the lesions in the lungs were of two distinct kinds, and these two kinds were never found in the same lung. One of these forms was a typical reticular tubercle, the other a purely inflammatory change with no structure, and I further showed that tubercle bacilli were never absent from the inflammatory form; while in the tubercular, cases occurred where not a single tubercle bacillus could be found.

I have examined every case I could get since that date, and each one has confirmed this fact. A number of men have worked in my laboratory on these cases and we have lungs in which it is absolutely impossible to find a single tubercle bacillus, and they are full of tubercular change. Numbers of cases are on record, where in well marked cases of tuberculosis, no tubercle bacilli can be found in the sputum during life or in the lungs after death. It has been recently stated by a well-known bacteriologist, a pupil of DOCTOR KOCH's, that without the tubercle bacillus there can be no tuberculosis, and I presume that is the view held by many. Now tuberculosis is an infectious disease in the state of Michigan. In what category are we to place these cases, where, judging from the clinical signs and symptoms, the appearance of the lungs at the post-mortem, and the microscopical evidence, we have a case of tuberculosis, yet the absence of the tubercle bacillus proves that it is not?

## CLINICS.

# A SYNOPSIS OF TWO HUNDRED AND FOUR CASES OF CLINICAL SURGERY IN SAINT MARY'S HOSPITAL AND SAINT MARY'S HOSIPITAL FREE DISPENSARY, DETROIT, FROM JULY 1 TO OCTOBER 1, 1893.

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## *SAINT MARY'S HOSPITAL.*

THE clinic of a large and well-established city hospital affords not only rare and peculiar cases, interesting to the "medical collector," but such a diversity of the more ordinary ills as to be attractive even to the busy practitioner. Moreover, as surgery has, during these latter days, come to occupy a more definite if not a different sphere in the realm of medicine, it would seem that a report of cases, as they offer themselves and not artificially selected, illustrating surgical facts, would not be inappropriately submitted. We present, therefore, at this time, a synopsis of the clinical surgery at Saint Mary's Hospital and Saint Mary's Hospital Free Dispensary, during the three months intervening between July 1 and October 1, 1893.

During this period there were fifty-one surgical patients treated in the Hospital proper. Of these, thirty-seven were male, fourteen female. Twenty-eight male and six female patients required operative treatment; two received internal medication simply; four were treated with poultices, liniments and other counter-irritant procedures; eight were supplied with permanent dressings, and three with antiseptic dressings. Briefly summarized, the results of the treatments given were as follows: of the fifty-one patients in the hospital, twenty-seven were discharged well; sixteen were discharged improved; three unimproved; one received no treatment; two remained under attention, and two died. The last two, it should be added, were operative cases and were serious in the extreme at the time of operation.

The operations performed have been classified in a general way according to the region affected, and were as follows: upon the head and neck, two; upon the thoracic region, three; abdominal, four; rectal and anal, four; genito-urinary, ten; upon the upper extremities, two; and upon the lower extremities, nine.

In every case, the requirements for the practice of aseptic surgery were met to the fullest possible extent, but, wherever the conditions demanded it, aseptic practices gave way to antiseptic. The hands and arms, not only of the operator and first assistant, but of every assistant at the operation, were thoroughly washed and made surgically aseptic. Freshly washed gowns, covering the arms and entire bodies from the neck to the ankles were worn by those most directly concerned in the operation. Vegetable sponges, previously prepared and kept in a carbolized solution, and corrosive sublimate gauze were used for sponging purposes. Silk, silkworm gut and kangaroo tendon were used for ligaturing and suturing. Glass or rubber tubing or aseptic gauze were used as drainage material, according to the peculiar necessities. Wherever possible and practicable, the patient underwent preparation previous to the time of operation. A full bath with removal of hair, and an aseptic condition of the site of operation, kept so by aseptic dressings, a laxative, refreshing sleep and abstinence from the morning meal almost invariably preceded the time of operation. Chloroform was usually prefered as an anesthetic, and it was considered as safe as ether, although, in cases of cardiac weakness, the latter was, from a precautionary view, used instead. It is appropriate to mention in this connection that in three cases, not otherwise alluded to in this article, where respiratory failure occurred during the use of chloroform, ether was substituted and was followed successively and as readily by both respiratory failure and cardiac disturbance as during the use of chloroform. As an anesthetic, chloroform insures prompter and more continuous action, less nausea, and, if given by a close and intelligent observer, will insure as safe results as ether.

## *OPERATIVE CASES.*

### OPERATIONS ON THE HEAD AND NECK.

*Case I.*—The first case, in which the head was the region affected, was that of J. P., who, while in an intoxicated condition, received from a fall three widely gaping lacerations of the scalp. The vicinity of the wound was shaved and thoroughly cleansed; the torn edges cut even and brought into apposition with silk sutures. Corrosive sublimate gauze was applied and healing took place by first intention.

*Case II.*—Mrs. H. W., aged twenty-one, entered the hospital September 28, 1893, having a tumor as large as a hen's egg, below the left angle of inferior maxillary bone. It had developed since the previous winter. The patient's mother had died of consumption, and the patient herself had a small tumor removed from her left labium six years previous, and suffered from abscess in the groin one year previous. The tumor of the neck was found to consist of a tubercular, glandular deposit, and was thoroughly curetted. The cavity was left gaping and allowed to fill in with granulation tissue, which it did slowly but satisfactorily.

### OPERATIONS IN THE THORACIC REGION.

*Case I.*—Mrs. K. W., colored, aged thirty-three, entered the hospital July 12, 1893. The patient knew little of her family history, but stated that one year previous she was treated five months for pneumonia, and that finally an opening was made in the left side of her chest, allowing the escape of considerable pus. The discharge continued and the patient became weaker and more emaciated, and, on coming to the hospital, was apparently in a hopeless condition. She coughed intensely, had a variable, high temperature, night sweats, and profuse expectoration. Having made a tolerably certain diagnosis of empyema, sections of the seventh and eighth ribs were removed, and a quart or more of pus expelled. The cavity was gently but thoroughly douched with a solution of corrosive sublimate, 1–5000, followed by sterilized water and then left open for sufficient drainage. The wound was redressed on the following day and some more discharge removed. On the fourth day following the operation the wound closed, the temperature and pulse remained normal, the cough gradually ceased, and the patient's general condition gradually improved, even beyond our anticipations.

*Case II.*—D. McI., two years ago, noticed a swelling and felt pain in his right mammary region. There was no history of traumatism, but soon an abscess formed. A first and a second time it was lanced, discharged, and failed to entirely heal. The patient entered the hospital August 23, and submitting to a thorough dissection, which included all of the axillary glands, mostly by means of a VOLKMANN spoon. The large wound was left to granulate. This it did slowly. The trouble was undoubtedly tubercular.

*Case III.*—Mrs. McI., aged fifty, entered the hospital September 15. Eleven years ago she had an abscess in her left breast. This was opened, discharged, and healed up so that the patient nursed her child as before. In June, 1893, a rapidly growing sarcomatous tumor appeared in the left breast, necessitating the excision of the entire breast and the removal of the axillary glands. As a precautionary measure, on account of the magnitude of the wound, a drainage tube was left inserted. The wound healed kindly with the exception of the draining point, which finally closed up.

## OPERATIONS ON THE ABDOMEN.

*Case I.*—D. L., aged forty-five, had for more than two years complained of pain in the region of his left kidney. He passed pus constantly in his urine, had a constant rise of temperature, and gradually became more debilitated, even to exhaustion. Four days after coming to the hospital, an incision was made dorsally down to the left kidney, and a full quart of pus evacuated. The medullary portion of the kidney was not incised. The cavity was gently douched with sterilized water and peroxide of hydrogen, and then packed with iodoform gauze. At once every bad symptom began to improve. Less pus appeared in the urine. His appetite and strength returned. The wound began to heal, and ten days after the operation the patient took the liberty to get up, dress, and walk down street to witness a circus parade. The patient was in the hospital seventeen days, and the wound had nearly closed on leaving.

*Case II.*—O. H., thirty-five years of age, a cigar-maker and an alcoholic, came to the hospital September 11, 1893. He had had a right inguinal hernia for nine months. An incision was made over the right inguinal canal, revealing a large omental hernia. After returning the protruding omentum and sac, the canal was approximated with successive rows of kangaroo tendon, and the external incision closed with silkworm gut. Unfortunately, the buried animal sutures in three days became the seat of a small abscess, which caused some delay in the healing of the wound. However, the patient soon entirely recovered and is now in sound health.

*Case III.*—T. H., aged eighty years, had for many years exhibited immense double, direct, inguinal herniæ. No serious intestinal trouble had ever been felt until he entered the hospital, July 31, 1893. He was then in great pain. The abdomen was swollen, tender, and tympanitic. The bowels were constipated and resisted both cathartics and enemas. The case became serious. Accordingly, the right hernia was reduced by operative means, and on closer examination the intestines were found to be adherent and constricted in many places. The gut was opened and the contents evacuated. The gut was then closed with LEMBERT sutures, the cavity douched with sterilized water, and after inserting a glass drainage tube, the wound was closed. No relief had been obtained by the operation, and the aged patient succumbed four days later. The autopsy revealed a worse and more complicated condition than was believed to exist at the time of the operation. The lower part of the descending colon was found in the left side of the scrotum, and was with great difficulty loosened. Numerous adhesive bands were found to exist all along the intestines, and not only fastened them to the abdominal wall in various places, but also in several places occluded the lumen. The case was entirely beyond remedial measures.

*Case IV.*—P. R., aged thirty-one, became a hospital patient July 6, 1893. Until seventeen years of age, he had been subject to epileptic convulsions. From that time until one year ago, his general health had been good. During the last four months his indisposition had increased. About June 1 a pigmented condition appeared and gradually increased in severity. The urine became more highly colored; stools were clay-colored and pain gradually concentrated in the region of the gall-bladder. Medical treatment under the direction of DOCTOR E. A. CHAPOTON had not been efficacious, and as the patient's endurance was well-nigh exhausted, prompt and radical operative treatment was inevitably the only hope. Accordingly, August 1, the immensely distended gall-bladder was opened and relieved of a great collection of concentrated bile. Anastomosis with the duodenum was considered impracticable at this juncture, so free drainage was quickly established by means of MURPHY's drainage tube, and the wound closed, Unfortunately, the patient's strength was too limited, for he died on the following day.

## OPERATIONS ON THE RECTUM AND ANUS.

*Case I.*—Mrs. L. S., aged twenty-six, was admitted to the hospital July 10, 1893. Two years previous, patient began to have frequent stools and constant uneasiness in rectum. Soon a sanguineous discharge accompanied each stool, and the uneasiness gave way to pain. On examination, with patient under chloroform, July 11, the dorsal and left internal surface of rectum for two and one-half or three inches above the internal sphincter was found to be extensively ulcerated. These patches were scraped with a small VOLKMANN spoon, the unhealthy tissue removed, and a strip of iodoform gauze inserted and left *in situ.* Complete recovery delayed for some time, but patient left the hospital August 3, improved.

The other three anal cases were fistulous. In each case the fistula was slit up and opened, the unhealthy tissue scraped away, and the cavity packed with iodoform gauze, With daily dressings and the necessary attention given to produce easy stools, the wounds healed kindly.

## OPERATIONS ON THE GENITO-URINARY ORGANS.

*Case I.*—L. B., aged sixty-two, became a hospital patient July 11, 1893. Three years before several small fragments of stone were removed from the bladder, and again symptoms of stone in the bladder returned; pain, especially on urination, frequent micturition, pus, and blood in the urine. The introduction of a searcher proved conclusively the presence of a stone. It was crushed with a BIGELOW lithotrite and removed with a BIGELOW evacuator. Following the operation the previous symptoms abated.

*Case II.*—This and the four succeeding cases exhibited different strictured conditions of some portion of the urinary tract, requiring urethrotomy. A. H. C., twenty-five years of age, became a hospital patient September 4. During the previous four years the patient had suffered severe intermittent neuralgic pain, not only in the testicle, but also over the entire body. Two years ago all sexual desire forsook him. Continued treatment by several doctors failed to relieve the troublesome conditions. At the hospital, examination revealed a strictured meatus. As a tight prepuce frequently causes reflex disturbances, especially in children, so a strictured meatus urinarius has been frequently observed to accompany, if not cause, peculiar general symptoms, relief from which followed a dilatation of the calibre of the urethra, especially at the meatus. In this subject, after producing local anesthesia by the use of cocaine, twenty per cent., applied with a small probe wound with absorbent cotton, the anterior portion of the urethra as far as the fossa navicularis was slit up sufficiently to admit a thirty-four French sound. The use of the sound was continued daily for one week, and then advised to be continued at increasingly longer intervals until the calibre remained constant. Complete relief followed this method of treatment.

*Case III.*—A. H., a carpenter, stepped on a piece of scantling, which flew up, striking him with great force in the perineum. Considerable swelling and pain followed, and retention of urine, necessitating aspiration, since catheterization was impossible. On admission to the hospital, August 1, the patient was greatly prostrated. The perineum was found to be greatly damaged, the urethra in this region so lacerated as to render impossible the passage of either bougie or sound. Accordingly, a urethrotomy, both internal and external through the perineum, was performed, and a gum-elastic catheter retained in position through the perineal opening, for drainage purposes. Recovery followed in a satisfactory manner and patient was discharged well, September 5.

*Case IV.*—W. McK. was admitted August 3. This patient had a urethral fistula, opening on the under surface one and one-half inches posterior to the glans penis, and had also an urethral stricture lasting five years. As the closure of such a fistula will ordinarily follow treatment of the accompanying stricture, an internal urethrotomy with curetting of the wound was considered sufficient. However, the fistula still remained, and on account of its annoyance the patient readily submitted to a second operation. This time the mucous membrane and skin on each side were dissected free and alternately shelved into each other, thus closing the fistula in a valvular manner. The successive layers were retained in position by means of unburied silk sutures. Healing took place by first intention, the sutures were removed in five days, and a steel sound, number sixteen English, readily passed, thus demonstrating no narrowing of the urethra. In all respects this operation was very gratifying.

*Case V.*—A. L. was a patient from August 5 to 9, during which time an internal urethrotomy in the spongy portion was made. The result was good.

*Case VI.*—T. S., twenty-five years of age, was admitted August 19. There was a history of gonorrhea and a resultant tight stricture, to which was due the serious condition in which we met him. There was not only retention, but also extravasation and infiltration of urine, involving both scrotum and hypogastrium as well as both groins. The penis had become so distended that a gangrenous condition had supervened, to prevent the extension of which the dorsum was freely laid open. Catheterization was in this case almost impossible. Accordingly, the aspirator was resorted to and a large quantity of decomposing and decomposed urine removed. August 20, an external perineal urethrotomy was performed and the infiltrated tissues again more freely laid open and drainage obtained. Sloughing of some of the tissues involved occurred, the dorsal surface of the penis being entirely laid bare. Recovery followed slowly, and the patient was discharged October 5, 1893.

*Case VII.*—This and the following case are of a different character, although they concern the genital region. D. S., twenty-four years of age, became a hospital patient July 20, 1893. He had for six months had increasing annoyance from a varicocele. The simplest, most practicable and successful treatment of this condition has been found by us to consist in sufficiently incising the scrotum to lay bare and ligature one or two of the largest veins. If this is done aseptically, healing takes place readily and the circulation is usually so altered as to satisfactorily remove the varicose condition. This patient was discharged cured seven days after admission.

*Case VIII.*—T. V., also twenty-four years of age, entered on the same day as the preceding case. The patient had, in addition to the varicosity, an enlargement or lengthening of the scrotum. After ligaturing a couple of the largest veins, a scrotal clamp was applied, eight square inches of surface of the scrotum amputated, and the flaps sutured with black silk thread. Recovery was not so rapid in this case, the patient being held over one more week.

*Case IX.*— J. E. R., a sailor aged thirty-one, had several recurrent attacks of urethritis during a period of seven years. He came to the hospital with a suppurating inguinal gland, which had been lanced three days previous. It had partially broken down, but the removal of the suppurating material was imperfect. A free incision was therefore made and a thorough curetting performed. The wound was then well cleansed with bichloride of mercury, 1–2000, and packed with iodoform gauze. Eight days later the patient was discharged cured.

*Case X.*—Miss M. McC., twenty-six years of age, entered September 27. During the preceding twelve months she had suffered increasing annoyance and pain from a urethral caruncle, situated near the meatus. On the day following her admission to the hospital she was anesthetized and the caruncle was removed with scissors and curette. Five days later the patient was dismissed.

## OPERATIONS ON THE UPPER EXTREMITIES.

*Case I.*—W. G., while in the employ of an electrical company, caught up a live wire and severely burned the ends of both fingers. The flesh was destroyed in places down to the phalangeal bones, and the osseous tissue laid bare. Amputation of the first phalanges, of the left index, and right ring fingers was performed. The distal extremities of the proximal phalanges were also excised by means of Henel's bone forceps and covered with circular flaps. Healing took place promptly.

*Case II.*—D. O. G., thirty-six years of age, entered the hospital for the treatment of elbow-joint. A heavy, falling plank had crushed the arm, dislocated the bones of the arm and forearm, and left the joint swollen and ankylosed. Passive motion and forcible manipulation, with the aid of an anesthetic, were tried without avail. Accordingly, September 20, having made a long incision externally and posteriorly, both condyles of the humerus and the heads of both radius and ulna were resected sufficiently to give the proper contour to the arm and easy movement to the new joint. A drainage tube was inserted, the wound aseptically dressed, and the entire arm encased in a plaster-of-Paris dressing. The permanent dressing was removed in four weeks, and partial movement of the joint obtained. The result was very satisfactory.

## OPERATIONS ON THE LOWER EXTREMITIES.

*Case I.*—F. D., thirty-three years of age, came to the hospital, having had his foot crushed by the passing of a wagon over it six years before. The os calcis had been crushed, in consequence of which abscesses had repeatedly formed and discharged. On the day of admission the patient was anesthetized, the injured part freely opened up, and the necrosed bone thoroughly removed. This included most of the os calcis. The wound was then packed with iodoform gauze, and with daily dressing healed rapidly. The patient was discharged eight days after admission.

*Case II.*—H. L., fourteen years of age, was admitted July 21, having what is commonly pronounced a tubercular ankle-joint affection. The trouble had existed one year and dated from a sprain received by a fall. The joint was still swollen and painful. The presence of pus being manifest, an incision was made into it and drainage provided. However, as the case did not improve, the joint was more freely opened and all necrosed, soft and osseous tissue, which was considerable, removed. After providing for more thorough drainage and dressing the wound, the foot and leg were encased in a plaster-of-Paris cast. The case improved slowly, but was still in the hospital October 1.

*Case III.*—A. B., aged fifteen months, was brought to the hospital August 10. In the month of April previous the mother noticed a swollen condition of the left knee, which gradually increased. The knee was lanced July 15, and continued to discharge. August 16 the knee-joint was resected and the entire limb put up in plaster-of-Paris. Suppuration continued and the little patient grew weaker instead of stronger. Accordingly, on September 27, the leg was amputated two inches above the knee, after which recovery followed quickly.

*Case IV.*—G. B., aged twenty-one, entered the hospital a second time, August 28, 1893. Seven years previously the patient caught cold and suffered rheumatoid pains in hip and leg, and the right hip became stiff. Complete relief from these symptoms not being secured, the patient came to the hospital two years ago. Extension and counter-extension of the limb were tried, the hip-joint was fixed with a thermo-cautery, and other applications made without benefit. The hip-joint was then opened and in the resection of the femur three inches of necrosed bone were removed. The wound began to close propitiously, but two small sinuses remained, through which a variable amount of discharge continued to run. There were, during the two years, strength-gaining periods, followed by weakening spells. Gradually the patient's condition became more debilitated, up to the period of his admission this time. As a last resort it was decided to amputate at the hip-joint. WYETH's bloodless method was followed with success, September 6. The patient quickly recovered from the immediate effects of the operation, and succeeding these his strength gradually returned. In a couple of weeks he left the hospital and went home, the wound almost closed up.

*Case V.*—A. S., was admitted August 28, suffering with necrosis of the tibia. The wound was thoroughly opened, curetted, and cleansed, and antiseptic dressings applied. He was discharged September 11.

*Case VI.*—F. S., came to the hospital, his feet having been run over and crushed by a car. The foot was in a very bad condition and owing to the obstinence of the patient, suffered from want of radical treatment for two weeks. Finally the patient consented to an amputation, and CHOPART's operation, slightly modified was performed August 30. The patient was discharged one month later, the wound being dressed as needed in the surgical department of the Free Dispensary.

*Case VII.*—J. F., entered the hospital September 7. Six weeks previously his left foot was crushed by a car and treated with CHOPART's operation. An abscess formed in the stump and continued to suppurate. September 13, the wound was thoroughly opened, curretted and drainage provided for. The patient was discharged October 11.

*Case VIII.*—Mrs. M. J., eighteen years of age, came to the hospital September 22, suffering with bubo in the left groin. External applications had been applied and now the abscess was lanced. Poultices were continued and the patient went home improved, September 28.

*Case IX.*—J. F., received a kick in the knee by a horse. Rapid swelling followed and a resulting abscess was opened. The patient was discharged October 8.

The cases other than those heretofore mentioned are noted as follows: Plaster-Paris casts were applied to the entire right limb and abdomen of a boy, aged twelve, suffering advanced hip-joint disease, but without improvement; to a tubercular knee-joint without benefit; to a sprained ankle of a female, aged thirty, with benefit; to a female patient suffering with pain in the back and epigastrium; to a male patient afflicted with curvature of the spine; to a male, aged twenty-two, with fractured tibia—the same patient had had same leg broken nineteen months before; to a cauterized knee-joint injured by a street car. The permanent dressing proved beneficial in all of the last four mentioned cases. Injections of an emulsion of iodoform were made in a tubercular knee of female and a plaster-of-Paris cast applied. Result was good.

Antiseptic dressings only were applied to two cases of varicose ulcers, and one case of flesh wound from injury by an elevator. The other cases were treated simply with poultices and liniments.

## *SAINT MARY'S FREE DISPENSARY.*

Comparatively very few cases of major surgery are presented at the out-door department. The few that are presented, are, if possible, received as hospital patients and cared for as such. Hence the following brief résumé concerns cases of less severity, but of comparatively as much importance as the former, for success in their treatment often taxes the patience and diligence of the surgeon to a considerable degree.

The disease met with most frequently among this class of patients is that of urethritis in either the acute or chronic form. Of the former there were during the period under consideration, eleven cases, all males, varying from eighteen to sixty years of age. The majority of these reported themselves as suffering their first attack, which had continued for from five days to five weeks before seeking aid. The treatment, as a rule, consisted, during the most acute stage, in the internal administration of salines and sedatives, the latter subduing the annoying nightly symptoms. As these symptoms were ameliorated the sedative remedies were stopped and antiseptics administered internally and externally as a wash, use being made of the balsams as seemed necessary according to the persistence of the irritation. Nine cases of chronic urethritis came in for treatment. The attacks had lasted various periods, from two and one-half months to several years. Antiseptic remedies were administered and in the more persistent types sounds passed.

Venereal diseases are of course very common among free dispensary patients, but they are not so frequent as is generally supposed. Five males, from twenty to fifty-three years of age, came for purely syphilitic treatment. One of these complained also of a chronic urethritis, and one had a hernia. All of these exhibited symptoms of the second stage of the disease and were given hydrargyrum protiodidum, one-eighth to one-fourth grain three times a day. The majority of gonorrheal and syphilitic patients exhibited also chancroidal ulcers, and rarely do the ulcers seem to them to be of much consequence. These patients were treated for chancroids only. The only treatment necessary consisted in as thorough cleanliness as possible aided by antiseptic washes and powders.

Cases of herniæ were comparatively frequent. Of the seven cases three were right complete indirect inguinal herniæ, one was incomplete, but otherwise of the same variety, one was direct and two were left indirect inguinal herniæ. These patients varied from thirty-six to seventy-three years of age. The herniæ had been noticed by the different patients from two days to two years before coming for advice. One entered the in-door department and was operated upon for the radical cure of the hernia. The others were provided with proper trusses.

One male, aged fifteen, and three females, fifteen, twenty-four and forty-two years of age, exhibited goitres of from two weeks to two years standing. The more recent cases were favorably affected by the iodides internally and externally. The older cases were under the treatment too short a time to secure good results.

The cases treated operatively were as follows:

Enlarged cervical glands, two cases; excision.

Cystic tumor over seventh dorsal spine, one case; excision.

Abscess of lower jaw, following contusion five weeks before, one case; drained and antiseptically dressed.

Double thumb of right hand, one case; amputation of smaller one at base.

Cystic tumor in axilla of female aged seventeen; excised.

Aneurism of inferior branch of anterior temporal artery, following blow five weeks previous, one case; ligature applied to vessel on each side of the dilated portion and the aneurism excised.

Verruca, one case; excision.

Sebaceous cyst of scalp, one case; excision.

Fissuræ ani, two cases; curretting.

Stone in the bladder, one case; entered in-door department for crushing operation and evacuation.

Hydrocele, four cases—fifteen months, sixteen months, three years and sixty-two years of age; aspirated.

Needle removed from left iliac region by excision.

The following few cases were advised to submit to operative measures but did not return for operations: Enlarged cervical glands, one case. This case was given iodides internally without favorable result. Ranulæ, two cases. Fatty tumor, one case. Polypi recti, two cases. Empyema, one case. Talipes equinus, one case. Genu varus—double, one case. Genu varus—single, one case. Genu valgum, two cases.

The following cases required antiseptic dressings only: Varicose ulcers, three cases. Varicose ulcers with much distended varicose veins, two cases; bandages were closely bound over the dressings. Furuncles, two cases. Paronychia, two cases. Burns, five cases. Pruritus glandis penis, one case. Orchitis suppurans, one case. Ulcers—syphilitic, three cases. Incised wounds, eight cases. Ulcers—simple, nine cases. Bullet wound of finger, one case. Suppurating stumps of three fingers following amputation required on account of explosion, one case. Lacerated wound of knee, one case.

Some cases that seek aid from a free dispensary require apparatus, medicine or other appliances too costly to be afforded and hence the treatment given is only the best possible under the circumstances. Occasionally no treatment worthy can, for the reason given, be afforded. Without further specifying, all the cases not heretofore mentioned, are enumerated without regard to treatment, namely: Enlarged inguinal glands, one case. Tumefactions in front of ear, two cases. Varicocele, one case. Enlarged prostate gland, one case. Inflammatory thickening of lower lip, one case. Osteoma of scapula, one case,. Dermatitis venenata, one case. Rectal ulcer of child, two cases. Hip-joint disease, two cases. Greenstick fracture of humeruse, one case. Spermatorrhea, two cases. Knee-joint disease, two cases. Pott's disease of the spine, two cases. Ingrowing toe nail, three cases. Tubercular wrist-joint disease, one case. Ankylosed elbow-joint, two cases. Ankylosed shoulder-joint, one case. Deformity following broken clavicle, one case. Deformity following fracture of ulna, one case; of radius, one case.. Synovitis of knee-joint, one case. Incontinence of urine, two cases. Dislocation of femur, one case. Myalgia, two cases. Muscular atrophy and paralysis, one case. Sprain, five cases. Atony of muscles of back, one case. Eczematous ulcers of ear, one case. Cystitis, one case. Necrosis of jaw, one case. Curvature of spine, muscular origin, one case.

# CORRESPONDENCE.

## DRESDEN LETTER.

### VAGINAL HYSTERECTOMY FOR MALIGNANT DISEASE.

Martin was one of the first men in Europe to advocate removal of the uterus through the vagina for malignant disease. His first operation of this kind was made in 1880, but it was several years before the profession at large became convinced that this radical method of treating cancer of the uterus was at all justifiable. Even to-day a few men of prominence, among whom is Lawson Tait, condemn hysterectomy for malignant disease in unmeasured terms. But the experience of the last six or eight years has clearly shown that it is a safe and satisfactory operation, and it is now recognized as one of the most approved surgical procedures of the day. **Martin** considers it to be the duty of every physician to advise the immediate performance of vaginal hysterectomy in all cases of malignant disease of the uterus coming under observation early, and, in which the disease is confined to the uterus itself, providing no contraindication to an operation exists, such as, dense adhesions of the uterus to the neighboring parts, or too great size of the organ, which would render the necessary downward dislocation impossible. The operation is *usually* contraindicated, also when the disease has extended beyond the limits of the uterus, but **Martin** has performed it a few times with good success when the vaginal wall was involved to a slight extent.

All cases in which the diagnosis is at all doubtful are subjected to microscopical examination. All German gynecologists and obstetricians are also practical microscopists and bacteriologists. The microscope and test tube are seen in every clinic, and much practical benefit is derived from their use. This close study of pathology and pathological processes is one of the most characteristic features of German medicine and surgery. Clinical symptoms are of course given due consideration when present, but not infrequently the use of the sharp curette and microscope make a diagnosis of cancer of the uterus, especially of the body, possible, when vaginal examination shows the organ to be normal in position, size, and consistency, and free from sensitiveness, and where the only indication of anything abnormal is hemorrhage, which is so often the first, and for a long time the only symptom of this fatal disease. True, all cases of cancer of the uterus are not cured by an operation, even when done early. But medical science has as yet failed to discover any other method by which we may hope to cure the disease, and without an operation, death is certain.

As performed to-day, the mortality of vaginal hysterectomy is not large. The technique has been much improved, and in the hands of many operators the death-rate is below five per cent. **Leopold**, of Dresden, has performed it sixty times in succession without a death, and his total mortality is but four per cent. In the last thirteen years **Martin** has made 160 vaginal hysterectomies for carcinoma with a mortality of fourteen and one-half per cent. What the rate has been in the last few years under his improved technique, I do not know.

The statistics as to recurrence after this class of operations are, I think, usually very unreliable. It is, however, indisputable that many women have thereby been restored to perfect and permanent health. Recurrence usually takes place, if at all, within the first six months, and after two years is unusual. It has, however, occurred as late as the fifth year. Of **Martin**'s first sixty cases, seventy per cent. were healthy at the end of two years. The statistics of the last one hundred cases are not yet completed. **Winter**, of the Royal Frauenklinik, of Berlin, has shown that recurrence is often a result of infection at the time of operation. The preparation of the parts for operation, therefore, should be very thorough. The day before the operation **Martin** directs the vulva and pubis to be shaved, the diseased tissues to be removed as much as possible with the sharp curette, the cavity of the uterus packed with iodoform gauze, the cervix closed with sutures, and the portio and vagina carefully disinfected. The latter are again thoroughly washed just before the operation. The steps of the operation are so well known that a detailed description is unnecessary. The ovaries and tubes are always removed with the uterus, and only catgut is used for ligatures and sutures; the needle employed is a common full-curved one. He has never tried forceps in this operation, nor in fact is it necessary, for he is well known to have an amount of dexterity in passing a needle that is possessed by few other operators. This is particularly well shown in his method of performing total abdominal hysterectomy. The patient is put to bed with an ice bag above the pubis, morphia is freely given if she suffers much pain, and no food is given as long as she has any nausea. No injections are given if the vaginal discharge remains inodorous. The patients are usually out of bed in two weeks. I have also seen MARTIN perform vaginal hysterectomy for small uterine fibroids, when the uterus was not more than twice the size of the normal organ; and for chronic hemorrhagic endometritis, after the uterus had been curetted several times, and its appendages removed, without avail.

### ANTISEPTIC PRECAUTIONS IN VOGUE.

MARTIN is called the most rapid operator in Europe. I have seen him remove an ovarian cyst in three and three-quarter minutes, counting from the time the skin was incised to the tying of the last suture. I also saw him make five laparotomies, some of them quite difficult, in less than two hours. One of the operations was a total abdominal hysterectomy for myoma. Like other German gynecologists he does his laparotomies in a special room that is not used for any other purpose. The day before an operation its walls, ceilings, and floor are washed with a carbolic acid or bichloride solution, and the evening before a ten per cent. carbolic acid spray is played in the room for two hours, after which the door is closed and not reopened until just before the operation. The assistants are required to take a full bath, put on clean underclothing, and wear white linen suits which must be freshly laundried after being once used. The patient receives a full bath and thorough disinfection of the vagina the evening before every laparotomy. Chloroform is the only anesthetic used, and when under its influence, the abdomen, pubis, and vulva of the patient are shaved, scrubbed thoroughly with soap and brush, then washed with alcohol, and finally with 1-1000 bichloride. She is then carried into the operating room, and placed upon a low table, when MARTIN takes his seat between her thighs, with her legs resting upon his knees. He has not tried the TRENDELENBURG position, as the one he now employs serves all of his purposes well, and is not so tiresome to one who performs from two to eight laparotomies at one sitting. He considers no laparotomy complete unless the peritoneal cavity is entirely closed, and has not drained a case of any kind in three years; nor does he ever wash out the abdominal cavity. I have seen at least a pint of pus, which subsequent examinations showed to contain both staphylococci and streptococci, escape into the abdominal cavity, and the patient recover without any rise of temperature beyond what is often seen with a normal healthy reaction: and that without any drainage or irrigation. MARTIN says his results are just as good now, if not better, than formerly when he drained. He believes that an operation should be done as rapidly as possible, in order to expose the peritoneum to the air for the least possible time, and that all unnecessary irritation of the peritoneum should be carefully avoided. For this reason he removes only what blood and fluid is readily accessible to a sponge, and closes the abdomen as quickly as possible. He thinks that a healthy or unirritated peritoneum will absorb, or digest, as he expresses it, considerable amounts of blood serum or pus that would otherwise be apt to cause trouble. Where pus escapes into the abdominal cavity, he anticipates trouble, only in quite recent cases. In old cases the gonococci or other bacteria are either dead or possessed of so little vitality that the peritoneum, if uninjured, absorbs them. The use of antiseptic solutions in the abdominal cavity, and the irritating effects of irrigation, too much sponging and drainage abrade the endothelium of the peritoneum and decrease its resisting power. In case the bacteria are sufficiently infectious to set up a peritonitis in spite of the relatively unfavorable conditions for growth that exist after this method of operating, he does not think any amount of flushing and draining can prevent it. The treatment of septic peritonitis he considers to be almost hopeless. As a rule the Germans drain much less than the Americans, and very few resort to irrigation of the abdominal cavity. I have already seen most of the prominent Berlin operators, and have not yet seen flushing of the peritoneal cavity employed, even in cases of general septic peritonitis with the pressure of large quantities of pus. Such cases are of course regularly drained; and in the practice of many men all cases in which extensive wound surfaces have been made in the pelvis or abdomen, or in which pus or other infectious matter has escaped are also subjected to drainage.

Before the close of every operation a large sponge soaked in sweet oil is passed into **Douglas**'s cul-de-sac, and another placed over the intestines under the abdominal incision while the sutures are being passed. In this way the peritoneum at the site of the operation and all abraded or opposing surfaces are covered with a thin layer of oil. This practice was suggested by **Martin**'s head nurse, **Frau Horn**, and he has followed it several years. He thinks it prevents in a measure the formation of adhesions, and that it tends to prevent the development of bacteria in the abdominal cavity. This is simply a theory on his part, and he has, I believe, as yet made no bacteriological experiments to prove its correctness. It is well known, however, that streptococci and staphylococci will not develop on the peritoneum until its endothelium has been abraded by their ptomaines, and covered as it is with oil the intact portions of the membrane are protected from the ptomaines and the parts already injured by the operation from the bacteria. Moreover, oil is a very poor culture fluid for these bacteria. Nature is supposed by some to encapsulate the human ovum in a somewhat analogous way to prevent its development before it reaches the uterus. **Professor Meisner**, of Göttingen, believes that the ova of all mammals are surrounded by a layer of albumen, as are those of the chicken, and that in a normal condition this envelope is not dissolved until the ovum reaches the uterus. When from some abnormal state, perhaps in the ovary or ovum itself, this envelope is defective and is dissolved before the ovum reaches the uterus, it adheres to the tube, and a tubal pregnancy is the result. He has already proved this to be the case in rabbits.

**Martin** thinks the suturing of the abdominal wall layer by layer favors the development of mural abscesses by more or less bruising of the tissues and opening them up to infection. Only catgut is used inside the abdominal cavity, but four or five strong sutures are used in closing the abdominal wound. So many operators do not use catgut on account of the difficulty of properly preparing it and retaining its strength and suppleness, that I think **Martin**'s formula will be of interest. It is, however, the method of **Frau Horn**, and has not before been published. He uses four sizes of catgut number (1) for the peritoneum, (2) for colporrhaphies, (3) for ligating arteries, and (4) for the broad ligaments, (5) pedicles, et cetera. It is first wound on reels and than placed in a bichloride solution, 1-1000 for six hours. It is then placed in a solution of alcohol, two parts, and oil of juniper, one part, for not more than twelve hours, and then put in a fresh solution. At the end of fourteen days the solution is again changed, and the catgut is ready for use. Each time the bottle is opened the solution is renewed.

## METHOD OF DEALING WITH BENIGN TUMORS.

**Martin** is disposed to operate upon uterine fibroids more frequently than most other gynecologists I have seen. He does not consider uterine myomata to be an altogether benign class of tumors, since in a study of 408 of his cases he found pathological changes such as suppuration, sarcomatous or cystic degeneration, 55 times; disease of the uterus such as carcinoma, 23 times; and disease in the adnexa such as pyosalpinx of ovarian cysts, 44 times. Over twenty per cent. of the cases showed changes that were the opposite of benign. Moreover, he thinks that in arriving at a diagnosis we are very apt to overlook the by no means small number of cases which fall easy preys to intercurrent disease, often being weakened by the exhausting hemorrhages, discharges and pain caused by the tumor. As long as the fibroid is not so large or so situated as to cause symptoms by its pressure, he advises the use of ergot, hydrastis canadensis, curetting, et cetera, to keep in check excessive hemorrhages. When these fail, which they so often do, he performs a radical removal. Two or three years ago he gave electricity a thorough trial and his results were not such as to warrant a continuance of its use. Although the hemorrhage often disappears after **Hegar**'s operation of removal of the ovaries, which in favorable cases brings on premature menopause, with involution and final disappearance of the tumor, yet this so often fails to prevent its further growth, and the development of pathological changes in the tumor, and it is so often impossible to reach the ovaries or even to find any trace of them that **Martin** has not attempted a castration in ten years. Cervical and small submucous myomata of the body are removed through the vagina. In 1880, he first performed enucleation of an encapsulated interstitial myoma, and was the first surgeon in the world to apply **Esmarch**'s principal of rubber construction to the uterus. This, by the way, he no longer finds necessary. This plan of operating, which permits the patient to retain the functions of menstruation and conception, he has performed 148 times with a mortality of eleven and one-half per cent.

For many years **Martin** used the intraperitoneal method of supravaginal amputation of the uterus, and from 1876 to 1888 made the operation 135 times, with a mortality of twenty-seven per cent. The idea of total extirpation is said to have originated with his head nurse, **Frau Horn**, who has been with him a good many years, and whose personality is almost as strong as his own. His operating table and several of his instruments were invented by her, and many of the methods followed by him originated with her. **Parvin**, of Philadelphia, offered her $5,000 a year a short time ago, but she preferred to remain in Berlin, being already quite wealthy. The high rate of mortality in supravaginal amputation had long been attributed by MARTIN to infection from the cervical canal, and many expedients were resorted to for its prevention, at least FRAU HORN suggested the advisability of removing the cervix also, and devised a method of doing it. He impatiently declared that the University men would say that he never did anything but what originated with a woman, and hesitated to try the new method. Meanwhile a German surgeon whose name I have forgotten, and MARY DIXON JONES, of New York, who were visiting his clinic, learned of the procedure and put it in execution upon returning to their homes, thus depriving MARTIN of the credit of making the first total extirpation of the uterus through the abdomen. In his first 43 cases out of which he lost 13, the operation was performed partly from the abdomen, and partly from the vagina, and the peritoneal cavity was not closed below; but in the last three years, the operation has been performed entirely through the abdomen, and the peritoneum is completely closed. During this time, he has made about seventy such operations with a mortality of nine per cent. But few German surgeons have followed him in this operation, the most of them, I think, adhering to supravaginal amputation. Many American surgeons, however, such as KRUG, EDEBOHLS, ROSS, BALDY, BOLDT, EASTMAN, NOBLE and GOFFE, and many Italian gynecologists now perform the total extirpation. COLLINS H. JOHNSTON, M. D.

DRESDEN, GERMANY, February 1, 1894.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, OCTOBER 23, 1893.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### PATHOLOGICAL SPECIMENS.

DOCTOR A. E. CARRIER exhibited a little girl suffering from favus. The doctor made the following remarks upon the case: Favus is not a common affection in this country, the statistics of the American Dermatological Association showing that it occurs twice only in every one thousand cases of skin disease. This patient has had the disease upon her scalp for over six years, and as can be seen almost the entire scalp is affected. The case is a typical one, with the yellow crusts, cup-shaped, and the atrophic patches devoid of hair. The odor is also marked, being that of mice; itching is present as shown by the excoriated and bleeding surface. In this case the microscope would hardly be necessary in order to make a diagnosis. The disease is very persistent, requiring from six months to a year of constant and thorough treatment for its cure; the disease is contagious, but less so than the other vegetable parasitic affections, and this case illustrates the fact that these parasites must find suitable ground for their development, as this child is one of a large family and has had one of the other children for a bedfellow ever since she has had the disease, and yet none of the rest of the family have been attacked. It is not an easy matter to detect the parasite under the microscope; I have seen a number of fine (?) specimens where the numerous mycelial threads were simply the potash crystals. In some cases there is a liability of mistaking favus for psoriasis or syphilis; seldom are the cases as tipical as is this one now presented. Treatment is by epilation and by the use of parasiticides. No matter how healthy the hairs may appear to the naked eye it should only be after repeated examinations with the microscope and failure to find the achorion that the case is to be pronounced cured. In this case the fungus is easy of demonstration and a number of slides are here for your inspection. The specimens for examination were prepared by soaking in ether and then immersing in a six per cent. solution of caustic potash.

Doctor George Duffield exhibited an interesting specimen of spina bifida taken from a child which had lived nine days. The opening in the spinal canal was over the sacrum extending to the coccyx, exposing the corda equinæ in its whole length. In this case there was not the usual sac that accompanies this malformation, but the skin, like the bone, had failed to grow across and unite, so that the deformity was at first taken for an ulcer. The doctor also exhibited a man suffering from spasmodic torticollis which was very severe. There was pain and muscular contraction on pressure either on the trapezius or on the sterno-cleido-mastoid. The attack seemed to have been brought on by continual exposure to a current of air as the patient pursued his daily occupation; the pain was relieved on lying down.

Doctor Longyear related a case of torticollis, due to a laceration of the cervix, cured by operation.

Doctor Chapoton gave the history of a case of torticollis where the patient, after suffering for six weeks, had been suddenly attacked with acute mania and was taken to an asylum where he subsequently died. He considered the prognosis in such case as very grave.

### DISCUSSION OF TOPICS.

The Society took up for general discussion the "Contagiousness of Consumption."

Doctor Flintermann read the notice which contained the recent action of the State Board of Health.

Doctor Chapoton opened the discussion. He considered the subject first from its historical stand-point, and traced the development of our knowledge on this question up to the present time. While he considered that experimentally the contagiousness of phthisis was well established, still he thought that it was not established clinically. He cited the 876 cases of Beverly Robinson, where the most careful inquiry failed to show a direct evidence of contagion in more than five cases. There was one clinical fact which he considered should have considerable weight—that the winter resorts where many consumptives congregate are no longer free from tuberculosis among the inhabitants, where this disease had been formerly almost unknown. He did not consider that there would any good come from the reporting of tubercular cases any more than there had resulted any good to the public from the reporting of typhoid cases. If the reports are merely for the sake of statistics it would be a useless burden for the physician. He considered it a hardship for a patient who already had this disease to be reported to the Board and be considered an object of espionage.

Doctor Lyster thought that while it might seem to be a hardship for a tubercular patient to think that he might communicate the disease, still the question of the greatest good to the public should be carefully considered. It is very strange that we have put off this subject so long. The tubercle bacilli are distributed very widely. He cited the case of the tinker who had phthisis and whose cart was sold after his death to one who subsequently came down with the disease. In small rooms where the ventilation is poor the bacilli of tuberculosis are easily disseminated. He considered that no one at present would rent a house in which several cases had died of tuberculosis. He considered that the evidence that tuberculosis is contagious as now positively established. Heredity was no longer to be considered the important factor as of yore. He referred to a storekeeper who was afflicted with phthisis and who expectorated on the floor, endangering the health of all who might chance to enter his store. Personally he supported the action of the Board of Health.

DOCTOR BONNING cited two cases, one where the wife previously healthy before marriage, contracted the disease from her husband, and the other where the husband previously healthy, contracted the disease from the wife.

DOCTOR SHURLY remarked that he had been dabbling with phthisis for twenty-five years and had not contracted it yet. While there was no doubt about the inocubility of tuberculosis, still the question of contagiousness was an entirely different one. That A should contract the disease from B, is well nigh impossible. Very few clinical cases show any element of contagion. We all inhale the dust which is supposed to contain bacilli. It is very unfair to confound inoculation with contagion. The experiments of DOCTOR TRUDEAU were cited where rabbits confined in damp places and not allowed their usual freedom soon died of tuberculosis, while those allowed to run wild continued healthy. In his own personal experience he had never known but two nurses to contract the disease. In dealing with this question we must be humanitarian.

DOCTOR HITCHCOCK thought that the action of the Board of Health would be beneficial to physicians and to patients by furnishing them with proper instructions about the disinfection of sputum.

DOCTOR MANN considered that there was a certain, though limited danger, from the sputa of phthisis patients, but the hereditary taint was the main factor in the etiology of the disease. He thought that DOCTOR LYSTER's case of the tinker who contracted phthisis from the bacilli hovering about the axle grease of his predecessor's cart was an example of a *post hoc propter hoc* argument.

DOCTOR DOUGLAS feared that people might be overeducated about this idea of contagiousness. In cases of this character where there is doubt the people are not the ones who discriminate.

Adjourned. P. M. HICKEY, M. D., Secretary.

# EDITORIAL ARTICLES.

## CRIMINAL ANTHROPOLOGY.

WHATEVER may be the relation subsisting between physical degeneracy and moral delinquency, the subject is so important in its sociological bearings that all sources promising enlightenment must be diligently investigated. For this reason the study of criminal anthropology deserves more careful attention than it has hitherto received at the hands of American investigators.

As a result very largely of the labors of **PROFESSOR LOMBROSO**, of Turin, the criminal is found to approximate in his physical characteristics a definite anthropological type. A series of more or less constant structural peculiarities mark the instinctive and congenital criminal as an organic anomaly. The psychical deformity manifested in the criminal finds a counterpart in certain physical and physiological peculiarities, which are seldom absent in the recidivist.

Foremost among the physical abnormalities of the congenital criminal are those pertaining to the cranium. The criminal's head differs little in size from those of normal individuals, but it is more dolichocephalic when that type predominates, and more brachycephalic, than a normal brachycephalic head should be. In other words, in the criminal head, the cephalic indices are exaggerated. The oxycephalic or sugar-loaf head is held to be specially characteristic of the criminal, a distinguished observer stating that "the head announces the monstrous alliance of the most eminent faculty of man, genius, with the most pronounced impulses to rape, murder, and theft."

Further peculiarities are exemplified in the cranial bones and their sutures. Squareness of the lower jaw, prominence of the malar bones, and reversionary types of skull—the so-called pithecoid reversion—may be enumerated among the chief characteristics. The ears of criminals are also noteworthy; **OTTOLENGKI** says fully eighty per cent. of criminals have abnormal ears. Murderers have large ears and thieves small ones. Gailors frequently become quite expert in their classification of criminals by observation of their ears. Among the ocular symptoms of criminality, the "ape-eye," a peculiar fixed look or stare, is characteristic. The eye of the homicide is glassy; and the eyes of murderers have been frequently observed to be more apart than is ordinarily the case.

These indications suggest that the psychical entity, as the more stable portion of the organism, may exercise a transforming influence on its physical counterpart.

The intrinsic differences between the occasional criminal and the genuine recidivist may be estimated by physical indices. The criminal may be the unfortunate inheritor of a moral deficiency as inevitable in its tendencies, as is the inheritance of a physical dyscrasia. Too much sentimentality may, however, be expended even upon the criminal, whose mental and moral atavism entitle him to humane consideration. The burden of his penalty should not be estimated by reference to conventional standards. His feelings are obtunded, and his susceptibility to physical pain usually considered perceptibly below the standard. He is in a condition of mental and moral paresthesia, and his social destiny should be regulated equally by a resolution that is obdurate as by a sentimentalism that is lenient.

## OPIUM IN INDIA.

THE evidence which is now being collected and collated through the inquiry inaugurated by *The British Medical Journal* will be found to substantiate conclusions in regard to the opium habit which have often been promulgated in a doubtful and tentative manner by those claiming special familiarity with this subject. Practical unanimity has been manifested by the great body of Indian medical officials in their replies to two important and comprehensive queries, these being, "To what extent is opium used among the population under your observation, distinguishing between its use and abuse?" and "Have you known many persons pass from taking it in moderation to taking it in excess?"

It is surprising how little variation there is in the answers of men whose experience of the native populations covers a variety of races, climates, and circumstances of life. Native Indian and European medical officers alike agree in regarding the opium habit as anything but a curse. The opium-eating Sikh is described "as better than those of his own race who do not eat it." SURGEON KALI NATH RAI says he had a gaol of seven hundred prisoners under his care, but "he never saw a person who used opium to excess." SURGEON CALDCOTT, of the Malwa political agency, says—"taken in moderation, as it is generally taken, I do not think any physical or moral deterioration results from its use." From Kashmir it is reported "it is not used to any excess;" from Behar it is stated "no instance of the abuse of opium, or any suffering at all from its use, ever came under my observation."

The habit, once established, does not seem to tend toward excessive use of the drug. From ten to twenty grains a day is the maximum limit reached. Its effect on the health and morals of the community seems in no sense detrimental. An overwhelming mass of testimony, offered by European and native civilians and doctors, shows that opium is far from being the unmitigated evil it is represented to be by well-meaning fanatics. The evidence tends rather to show that opium is a necessary and beneficial stimulant, enabling millions of people who are poorly fed and otherwise badly equipped for the battle of life to pursue their labors hopefully and successfully. The few poor wretches who may have ruined themselves by its excessive use, must not be used as data for generalizations concerning the maleficent effect of the drug upon those millions to whom it has rather been a boon, enabling them to weather the storm and stress to which they might otherwise have yielded in despair.

## EDITORIAL BREVITIES.

### PHYSIOLOGY AND THE DEATH PENALTY.

THERE seems to be a growing conviction among legislators that the death penalty should be of use to science. A bill is now before the legislature of Ohio providing that all persons sentenced to death shall he held as subjects of experimental research. The executioner is to be an expert physiologist, and he is to make such experiments as may be useful to society and science in a humane and merciful manner. What seems to be forgotten is that the attainment of a sentimental indifference, that can passively permit the vivisection of a fellow mortal, will offset any advantage that may proceed from such an institution as physiological execution.

### SMALL-POX IN A CITY HOSPITAL.

THE difficulties of diagnosis, and the dangers resulting from mistaken diagnosis, have never been more aptly illustrated than in the outbreak of small-pox in the city hospital of New York, which already numbers a dozen victims. A vagrant, an alcoholic and syphilitic, entered the hospital suffering from a tubercular syphilide, which had existed three weeks. There was no fever, but symptoms of uremia were manifest. Incontinence of urine seems to have prevented analysis of the urine. Shortly before death, pustules appeared over the body, and at a consultation of the house staff it was decided these were syphilitic manifestations. At this time the rectal temperature was only 99° Fahrenheit. These were circumstances that might fairly confound the counsel of the firmest philosophy. When both poxes unite in an effort to deceive the physician, the result is likely to be bewildering to the most expert diagnostician.

## MEDICAL NEWS.

### DEATH OF A GREAT SURGEON.

Doctor Theodor Billroth, of Vienna, a surgeon of international reputation, succumbed to disease of the heart on the 6th instant, aged sixty-five years. He was born at Bergen, Bugen Island, April 26, 1829, and died at Abbazia, an Austrian winter resort, whither he had gone to recruit his failing health. He studied medicine in the Universities of Gottingen, of Berlin, and of Vienna. He assisted Langenbeck in the University of Berlin, in 1855; became professor of surgery and chief of clinic in the University of Zurich in 1859; and was called to the professorship of surgery in the University of Vienna in 1867. In 1870 he was director of the military hospitals on the Rhine. He was the author of a "Hand-Book of General and Special Pathology," and a generous contributor to medical periodical literature, besides being associate editor of the *Archiv für klinische Chirurgie*. The year 1892 marked the completion of his twenty-fifth annual course of lectures in the University of Vienna, and in commemoration of this event he was presented with a "Festschrift" volume, including researches in surgery by over thirty of his former pupils occupying positions in German universities. Doctor Billroth performed the first successful resection of the pylorus for malignant disease in 1881, and while he was a recognized authority on tumors—his valuable treatise on this subject having been translated in 1861—yet the most striking surgical achievement of this great operator is said to have been his pylorectomy.

### A CRUSADE AGAINST THE CIGARETTE.

A movement has been instituted in San Francisco to abolish the practice of cigarette smoking which prevails to an alarming extent among minors. It is said that girls as well as gamins delight in experiencing the peculiar sensation occasioned by puffing these noxious intoxicants. A pledge exacting abstinence from the indulgence until the age of twenty-one years is being circulated among school children and many signatures thereto have already been obtained, notwithstanding the influence which this fashionable fad sways over its victims. The board of education have been instrumental in having a committee appointed to devise means for suppressing the evil. This committee of which Doctor Clinton is chairman, have reported (1) That in our opinion the most radical and efficient way to stop the pernicious habit is by legislation, and we would, therefore, suggest that the board of supervisors be requested to pass an ordinance imposing a license of twenty-five dollars per quarter upon all persons engaged in selling cigarettes. (2) That the medical fraternity of the city and county of San Francisco be requested to affix their signatures to a document which shall explain in detail the physical evils that result from cigarette smoking, and that the document be circulated in all the schools of the city. (3) That the clergy of all the denominations make cigarette smoking the subject of their sermons on a certain day, to be selected by themselves. Several brands of cigarettes have been analyzed and were found to contain, in addition to nicotine and the usual constituents of tobacco, ammonium chloride, nitre, woody fiber other than that belonging to tobacco, a soft pithy material resembling the root or pith of some plant other than the tobacco plant; while the percentage and character of the ash clearly indicated that the sample was not pure tobacco.

### PROFESSIONAL REPUTATION VINDICATED.

A Libel suit of a medico-political nature was recently terminated by a Detroit court in which the medical skill of a prominent physician was passed upon. In December, 1890, Doctor J. E. Clark was appointed county physician by a board of auditors politically constituted. The term of this medical officer is one year according to the statute, unless the incumbent should prove incompetent or otherwise become disqualified. On April 15, 1891, the political complexion of the auditing board underwent a change, and on the 27th of that month this body passed a resolution removing Doctor Clark and about twenty other employes on the ground of alleged incompetency. The cause was recorded in the journal of proceedings of the board which is a public record. Doctor Clark commenced a suit for libel, based upon the charge of incompetency made against him. During the trial one of the ex-auditors admitted that the action of the board had not been based on the incompetency of the discharged employes, but had been taken because of the board's desire to have their own appointees in service under them. The jury returned a verdict of $900 for the plaintiff.

### THE INTERNATIONAL MEDICAL CONGRESS AT ROME.

The committee has opened at Rome a special office to provide lodgings for congress members at hotels and private houses. Members can apply also on the same purpose to Messrs. Thomas Cook & Son, Piazza Martiri, Rome, who have been requested by the executive committee to satisfy such applications when made in time. Excursions will be arranged in Rome under the guidance of Professor Forbes. Congress members intending to see Naples and Sicily can travel from Rome to Naples with fifty per cent. reduction on the usual railway fares, and can join the excursions which will be arranged by the Naples agency of Messrs. Thomas Cook & Son. This agency will arrange an undetermined number of excursions to Pompeii, Vesuvius, Capri, Sorrento, Castellamare, and Baiæ, and three to Sicily with the following itinerary: Naples, Messina, Catania, Faormina, Girgenti, Syracuse, and Palermo.

### THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES: NOTICE OF PROPOSED AMENDMENT TO SECTION V, ARTICLE III, OF THE CONSTITUTION.

At a meeting of the faculty of Rush Medical College, held December 7, 1893, the faculty by unanimous vote passed the following resolution, to-wit: *Resolved*, That Section V, Article III. of the Constitution of American Medical Colleges be amended to read as follows: "From students who intend to graduate in 1899, or in subsequent classes, four years of medical study and an attendance upon four annual courses of lectures of not less than six months' duration each will be required. Provided, that graduates of literary colleges who have taken a course of four years, including study in the natural sciences, and graduates from universities and colleges that furnish a suitable course of scientific studies, graduates of schools of pharmacy that require three years of study and adequate preliminary education, and graduates of dental colleges requiring two years of study and adequate preliminary education, may be admitted to the second year's work or courses of lectures in the college without examination." The present wording of Section V, Article III, is as follows: "Candidates for the degree of Doctor of Medicine shall have attended three courses of graded instruction of not less than six months each, in three separate years." It will be observed that the adoption of the proposed amendment will require of all matriculates of the session of 1895, attendance upon four full courses of instruction before receiving the degree of M. D. Recognizing that the proposed amendment, if adopted, would necessitate the formulation of a general curriculum of study for the various branches of the courses, and perchance, other necessary changes or additions to the by-laws, the President, Doctor N. S. Davis, has appointed a special committee to prepare a new schedule of minimum of requirements, and to submit the same at the fifth annual meeting, to be held in San Francisco, at 3 P. M., Wednesday, June 6, 1894.

### SIR ANDREW CLARK AND HIS FEES.

A CHARACTERISTIC trait of the late Sir Andrew Clark is said to have been that he would never take a larger fee than that he deemed proper. On returning to London from Cannes, the patient whom he had visited on a certain occasion sent him a cheque for $30,000. He returned the cheque stating that he could not accept more than $3,750, which was not an excessive fee, as the visit had taken him away from his practice for a week. The fee was paid and the first cheque returned asking that Sir Andrew Clark would see that it was devoted to the benefit of the suffering sick poor, a wish which was faithfully fulfilled.

### A STERILIZATION STAMP.

DOCTOR H. HOCHEEGY in a recent number of *The Wiener Klinische Wochenschrift* describes a method whereby he can assure himself that articles of dressing have been sterilized. He uses a yellowish-brown marking fluid which has the property of becoming bright red on exposure to the temperature of boiling water. If the sterilization is complete, the yellow spots with which the dressing has been marked become red. The coloring matter consists of one hundred and fifty parts of a solution of aluminum acetate, one hundred and fifty parts of water, and five parts of a twenty-one per cent. alizarine paste.

### MINOR INTELLIGENCE.

THE number of medical women in England is 186.

A STATUE will be erected to the late Professor Charcot.

BERLIN fosters a society for the healthy education of youths.

DURING 1893 the total number of deaths in Chicago was 27,059.

THE British Medical Association has now a membership of 14,703.

THE Ohio legislature will have to deal with a bill prohibiting circumcision.

DOCTOR RICHARD MURPHY, of Detroit, whose death occurred recently, was a graduate of the medical department of the University of Michigan, class of 1875.

THE Michigan State Board of Health held a meeting at Lansing on January 12.

GOVERNOR PATTISON has appointed Doctor W. D. Green physician to the port of Philadelphia.

THE Ohio State and Local Boards of Health convened at Columbus on January 25 and 26.

THE annual meeting of the New York State Medical Association will be held in Brooklyn, Tuesday, May 22.

THE Medical Society of the Missouri Valley will meet in Omaha on March 15, and continue in session one day.

THE *Indian Medical Gazette* suggests that the time has come for holding a medical meeting in tropical Asia.

A SANITARY convention will be held at Menominee, April 5 and 6, under the auspices of the State Board of Health.

THE Royal College of Surgeons, of Ireland, has elected a female fellow—Doctor Emily Winifred Dickson, of Dublin.

THE neurologists of Baltimore have organized a society for the discussion of problems of psycho-pathology and neurology.

TUBERCULIN A TEST FOR TUBERCULOSIS IN CATTLE.—Veterinarians assert tuberculin to be a sure test for tuberculosis in cattle.

THE charitable, correctional, and reformatory institutions of New York—state› city, and benevolent—cost over $20,000,000 annually.

MEASLES have been prevalent in New York City during the past month, the number of cases averaging almost one hundred daily.

THE General Hospital Society of New Haven, Connecticut, has received a bequest of $5,000 from Andrew L. Kidson, of that city.

THE widow of Ex-Governor Olden, of New Jersey, has donated $17,000 to the Sheltering Arms Hospital, at Charleston, West Virginia.

A BILL is before the Virginia legislature providing for women physicians for the women patients in the insane hospitals of that state.

THE Medical Society, of the State of California, will convene in San Jose, April 17, 18, and 19, under the presidency of Doctor Kenyon.

THE College of Physicians and Surgeons, of Philadelphia, have protested against placing restrictions upon the movements of tuberculous patients.

DOCTOR PAUL DIDAY, the eminent French surgeon and one of the founders and the first editor of *Lyon Médical*, died January 9, aged eighty-three years.

THE first number of *Matthews' Medical Quarterly* has appeared. It is edited by Doctor J. M. Matthews, of Louisville, and is devoted to rectal and gastro-intestinal diseases.

DOCTOR R. W. GILLMAN has been appointed, under the Department of the Interior, expert examining surgeon in Detroit for the eye and ear, for the Bureau of Pensions, Washington.

SMALL-POX does not abate in Paris. Vaccination has been much neglected. There is now to be general and compulsory vaccination in all common schools.

PROTECTIVE INOCULATION.—Doctor Myers, of the Philadelphia Board of Health, reports that diphtheria may be prevented by inoculation with a protective serum.

DOCTOR C. D. MCINTYRE, of Mosherville, is dead. He was borne near Woodstock, Ontario, graduated in Cleveland, and had practiced in Mosherville four years. A widow survives him.

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.—Preliminary program of the Congress of American Physicians and Surgeons, to be held in Washington, District of Columbia, May 29, 30, 31, and June 1, 1894.

REGULATION OF THE PRACTICE OF MEDICINE IN OHIO.—The delegates of the Ohio medical societies in convention have agreed to a bill providing for the institution of a state board of examination and registration.

THE Training School for Attendants, connected with the Eastern Michigan Asylum for the Insane, will hold graduation exercises on February 28. The valedictory address will be delivered by Doctor E. P. Christian.

THE Brooklyn Homeopathic Hospital has recently been the scene of an unpleasantness which culminated in the resignation of the visiting staff. The breach was promptly healed by the appointment of new members.

SURGEON-GENERAL GEORGE M. STERNBERG, of the United States army, was tendered a reception by Mister William H. S. Wood, at his residence in East Sixty-Third street, New York city, on Tuesday evening, February 6.

THE Vermont State Board of Health have resolved to recommend a general vaccination throughout the state. This precaution is suggested in consequence of sporadic cases of small-pox prevailing in Boston, New York, and New England.

DOCTOR JOHN S. BILLINGS, of the United States army, has been elected an honorary member of the Royal Academy of Medicine of Belgium; also to membership in the International Statistical Institute, which has its headquarters in Rome.

THE Milwaukee Board of Health have issued an order to the effect that all school children be vaccinated, but the Lutheran clergy and Turner societies of that city have joined the anti-vaccination league and will fight the mandate on legal grounds.

THE College of Fine Forces, an institution which aims "to bring to a scientific basis for human cure the great forces of nature—such as sunlight, color, electricity, magnetic massage, bathing systems, and mental and psychic therapy," has been chartered under the laws of New Jersey, and is located at East Orange.

DOCTOR J. B. HINKLE, of Americus, Georgia, and his son, who is also a physician, shot and killed Doctor Worsam a professional rival, about one year ago. The doctor was recently convicted of the crime and his son will now be placed on trial for the same offence. For many years Doctor Hinkle was Speaker Crisp's family physician. A feud of long-standing antedates the shooting, and the trial is said to have been one of the most noted in the legal annals of Georgia.

THE American Gynecological Society will meet in Washington, District of Columbia, on Tuesday, May 29. There are eleven vacancies in the list of Fellows.

BARON NATHANIEL ROTHSCHILD has donated his chateau and estates at Reichenau, in the Rhetian Alps, valued at 5,000,000 florins, to be used as a hospital for sufferers from lung diseases. Five hundred beds will be placed at the disposal of patients.

DOCTOR EDMUND A. CHRISTIAN, of Pontiac, surgeon at the Eastern Michigan Asylum, was married on January 24, to Miss Augusta Isabella Baldwin, daughter of Ex-Governor Baldwin, of that city. The doctor and his bride are making a wedding tour in Cuba.

A BILL is before the New York assembly which has for its purpose the abolition of the New York State Commission in Lunacy and the transfer to a committee of the State Board of Charities the work of supervising the care of the insane in the institutions of the state.

THE eighty-eighth annual meeting of the Medical Society of the State of New York, was held at Albany, February 6 to 8. The following officers were elected: President, Doctor G. H. Fox; vice-president, Doctor Frank Low; secretary, Doctor F. C. Curtis; treasurer, Doctor C. H. Porter.

A WOMAN recently died in Detroit six hours after having been attended by a midwife. An inquest resulted in the jury finding that death was probably caused by ignorance and neglect on the part of the midwife. The latter is a very old woman and has promised to abandon practice.

The average yearly income of medical men in England is $1,200; that of the clergy, $5,000; of barristers, $1,200. An exceptionally successful lawyer gets $65,000, while Doctor Andrew Clark's income raises the figure to $75,000 or $100,000. Charity work seems to be more bountifully rewarded in the clerical than in the medical profession.

DOCTOR WILLIAM K. MOORE, of Algonac, died of pneumonia on the 10th instant. He was born at Owen Sound, Province of Ontario, in 1855, graduated at the McGill University, Montreal, in 1881, and began professional work at Algonac in 1882. He enjoyed an extensive practice and was very popular, being president of the village at his demise.

THE Philadelphia alumni of Jefferson Medical College recently held a meeting at which a resolution was unanimously adopted requesting the board of trustees to appoint a provost from the faculty, that the institution might have a responsible chief executive officer. They also advocated reörganization on a basis substituting a fixed salary to the chairs instead of the fee-system now in vogue.

THE American Electro-Therapeutical Association have resolved to exert their influence in a movement to standardize electro-therapeutical apparatus—coils, meters, electro-static or influence machines, electrodes, et cetera. A committee appointed by this organization is investigating the various subjects, and physicians, experts, and manufacturers are asked "to coöperate in making suggestions, and in relating their experience, and preference for instruments, with reason and data."

**Death in Attempting to Win a Wager.**—The London correspondent of *The American Practitioner and News* tells of a man who made a bet he could take a billiard ball in his mouth and cover it with his lips. He made the attempt and appeared to succeed, but was seen to struggle. He died by suffocation, the billiard ball having been crowded back so as to obstruct the lumen of the larynx.

At the last meeting of the Washington State Board of Medical Examiners twenty-two applicants for a license to practice medicine presented themselves for examination. Of this number only ten passed satisfactory qualifications. A general average of seventy-five per cent. on all branches is now required, and indications that the standard will soon be raised to eighty per cent. are imminent.

The mother-in-law of the late Mikado of Japan has been ill. The occasion gave rise to the greatest consultation on record, 423 physicians being summoned to attend the case. This array of medical talent, failing to inspire confidence and insure recovery, was finally supplanted by a Buddhist priest, whose supernatural power and skill enabled him to promise everything to the credulous patient.

The New York County Medical Society elected the following officers on the 15th instant; President, Doctor S. B. W. McLeod; vice-president, Doctor A. D. Ruggles; recording secretary, Doctor P. B. Porter; corresponding secretary, Doctor W. W. VanArsdale; treasurer, Doctor J. S. Hinton; member of executive committee, Doctor J. B. White.

**Germany's Doctors.**—Germany, whose population is about 50,000,000, had 21,621 physicians in 1893, against 20,500 in 1892; being an increase of 1,521. That makes about 4.37 doctors for every 10,000 inhabitants, but they are not equally divided throughout the empire; for in some regions there are not even two doctors for every 10,000 inhabitants, while in other districts there are thirty of them for the same number of population. Germany possesses also 915 dentists and 4,988 druggists.

R. G. Kedzie, M. D., professor in the State Agricultural College, at Lansing, recently delivered an address before the Farmers' Institute at Schoolcraft, in which he said that cream of tartar baking powders cost the manufacturer three cents per pound and sold for sixty cents; koalspar is nothing but common salt, slightly colored, and sells for $35 a barrel; black pepsin, made of salt and a little pepsin, sold for butter-making, is worth nothing, and sells at the rate of $7,620 a barrel; chemical preservatives are highly injurious to health, and "secret" preserving processes bring outrageous prices; commercial jellies are made of starch and sulphuric acid, flavored and colored.

A new antidote for morphine is reported. Doctor William Moor, of New York City, has discovered that permanganate of potassium is an effectual agent for combatting opium and its alkaloids. To prove his claim he subjected himself to a three-grain dose of morphine in the presence of several physicians, immediately following the ingestion with a four-grain dose of permanganate of potassium. No ill-effects resulted. The new antidote has been successfully tried on a man in Arkansas who attempted suicide by taking three grains of morphine. Doctor Moor recommends giving ten or fifteen grains of the antidote dissolved in six or eight ounces of water at intervals of thirty minutes, three or more times.

THE New York Academy of Medicine has established a Nurses' Bureau. Eligibility to membership requires the applicant to pay a yearly registration fee of two dollars and submit an endorsement by two reputable physicians who will be interrogated minutely relative to their knowledge of the woman's character and capacity as a nurse. The bureau will exact a fee of two dollars from each patient for the privilege of applying for a nurse. When a nurse leaves a case the physician in charge—and in some instances the friends of the patient as well—will be written to for minute details regarding her conduct of it, and if the report prove unfavorable she will henceforth be debarred the privileges of the bureau.

AN army medical board will be in session at Washington City, District of Columbia, during April, 1894, for the examination of candidates for appointment to the medical corps of the United States Army, to fill existing vacancies. Persons desiring to present themselves for examination by the board will make application to the Secretary of War before March 15 for the necessary invitation, giving the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from which they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates, based on personal acquaintance, from at least two reputable persons, as to citizenship, character and habits. The candidate must be between twenty-two and twenty-eight years of age and a graduate from a regular medical college, as evidence of which his diploma must be submitted to the board. Successful candidates at the coming examination will be given a course of instruction at the next session of the Army Medical School, beginning in November, 1894. Further information regarding the examinations may be obtained by addressing the Surgeon General, United States Army, Washington, District of Columbia.

# RECENT PUBLICATIONS.

## REVIEWS.

### A TEXT-BOOK OF PHYSIOLOGY.*

THE revised sixth edition of Foster's great work is now being published in five parts, convenient in form and size for the use of the student and practitioner. Owing to important advances in knowledge of the heart-beat, the author has had to revise the first part of his work, which deals with the blood tissues of movement and vascular mechanism generally. Nothing can be said in praise of this great work which is undeserved. Every page bears witness to the zeal and devotion to scientific truth which have made it a standard authority upon the subject of which it treats.

The present issue is very handsomely published and will be welcomed by those who may need the book in the laboratory, for its special convenient form and size.

* By Michael Foster, M. A., M. D., LL. D., F. R. S., Professor of Physiology in the University of Cambridge. Sixth edition. Part I. Price, $2.60. McMillan & Company, New York.

# PRACTICE.

## PERTURBED NERVOUS FORCES.

THE season of pneumonia, typhoid fever, and bronchitis, also the recurring epidemic of influenza, while not so malignant as its predecessor, the grippe, still makes apropos an extract from *The Medical Summary.* It says, in speaking of the action of antikamnia: "This drug has a well-earned character as an analgesic. It is one of the few among the many claimants for favor that have successfully stood the test of experience. In a case of acute poly-articular rheumatism prominently affecting both knees, where there was great swelling and exquisite tenderness of the articulations, two ten-grain doses at an interval of an hour procured almost complete relief, followed by several hours of restful sleep. This was the more remarkable as after one or two more doses there was comparatively little pain experienced to the close of the attack. For the relief of nervous headache, hemicrania, menstrual neuroses and neuralgias in general, it cannot be over-praised. In the prevailing epidemic of the grippe its usefulness as a pain-reliever and composer of the perturbed nervous forces is unsurpassed. It has become indispensable, and doubtless there is not a physician acquainted with its decisive action who could be induced to dispense with it. Five or ten grains as a commencing dose, then two, three or five grains every three or five hours, will relieve the severest cases in a few hours, causing the splitting cephalalgia, lumbar and general muscular pains and nervous disquietude to vanish. On the whole it abates the fever and subdues the whole assemblage of perturbed activities that distinguish the grippe as no other agent, or combination of agents, has ever done, producing not a single unpleasant symptom and leaving no sequelæ. Quinine checks ague, digitalis energizes the drooping heart, ergot promotes uterine contraction, but their action is no more nearly specific than is that of antikamnia in its sphere of usefulness." In line with and supplementary to the foregoing, Hugo Engel, A. M., M. D., late Lecturer on Electro-Therapeutics, Jefferson Medical College, Professor of Nervous Diseases and Clinical Medicine, Medico-Chirurgical College, and Consultant in Nervous Diseases at Saint Joseph's Hospital, Philadelphia, says: "The remedy has become a favorite with many members of the profession. It is very reliable in all kinds of pain, and as quickly acting as a hypodermic injection of morphia. It is used only *internally.* To stop pain five grains are administered at once; three minutes later the same dose is repeated, and, if necessary, a third dose given three minutes after the second. If ten minutes after the third dose the remedy has had a decided effect, but a little of the pain be remaining, a fourth dose of five grains may then be administered. In ninety-two per cent. of all cases it immediately stops the pain.

The following is an excellent prescription in the grippe and painful bronchial catarrh:

℞ Antikamnia (Genuine), . . . . ʒij
Mist. Glycyrrh. Comp., . . . ℥iij
F. E. Rad. Glycyrrh. Comp., . . . ʒij
Vini Rubri Gall., . . . q. s. ft. ℥vj
Misce. Signa.—Two teaspoonfuls every three hours.

For whooping-cough in a child four years old:

℞ Antikamnia (Genuine), . . . gr. xxxvj
Divide in chart., No. xij.

**Signa.—At night, one powder every fifteen minute until three have been taken. Administer in dilute claret, or port or sherry wine.**

**As an antipyretic from five to ten grains should be given every ten minutes until the temperature has been reduced, or forty to fifty grains have been taken, when the same dose is repeated at longer intervals, until the desired effect is obtained."**

## CLINICAL NOTES.

**The results obtained from bromidia have been excellent. It combines all advantages of other hypnotic preparations without their disadvantages. The fact that it produces no unpleasant sensation on awaking renders it specially valuable.—*The Chicago Medical Standard*, November, 1893.**

McArthur's chemically pure syrup hypophosphites (lime and soda) is a most elegant preparation. In all details, color of the syrup, which is constant, bottle, label, and whatever else betokens purity and elegance is expressed in that preparation. You all know the value of hypophosphites of lime and soda. McArthur's syrup hypophosphites (lime and soda) compound is the standard preparation, and as a physician has said: "Whatever you can do with hypophosphites of lime and soda you can do with this preparation—and that is a great deal."

How to Administer Tincture of Iron.—Owing to unpleasant features, we had for some years nearly ceased to prescribe the tincture of the chloride of iron, using in place of it some other of the many ferruginous preparations. We were assured by Doctor Joseph W. Bryant, of New York, that if we would use Tarrant's Seltzer Aperient as a vehicle we would overcome the objection to tincture of iron. We have found it an immense success, and almost never prescribe any other form of iron, and *never* in any other way.—*The Massachusetts Medical Journal*, December, 1893.

Some Excellent Rules to Follow in the Care of the Teeth.—Use a soft brush and water the temperature of the mouth. Brush teeth up and down in the morning, before going to bed, and after eating, whether it is three or six times a day. Use a good tooth powder twice a week, not oftener, except in case of sickness, when the acids from a disordered stomach are apt to have unwholesome effect upon the dentine. Avoid all tooth pastes and dentifrices that foam in the mouth; the lather is a sure sign of soap, and soap injures the gums, without in any way cleansing the teeth. The very best powder is of precipitated chalk; it is absolutely harmless and will clean the enamel without affecting the gums. Orris root or a little wintergreen added gives a pleasant flavor, but in no way improves the chalk. At least a quart of tepid water should be used in rinsing the mouth. A teaspoonful of listerine in half a glass of water used as a wash and gargle after meals is excellent; it is good for sore or loose gums; it sweetens the mouth, and is a valuable antiseptic, destroying promptly all odors emanating from diseased gums and teeth. Coarse, hard brushes and soapy dentifrices cause the gums to recede, leaving the dentine exposed. Use a quill pick if necessary after eating, but pieces of waxed foss is better. These rules are worth heeding. Be assured of the genuine listerine by purchasing an original bottle.

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### A CASE OF PHANTOM TUMOR.*

By W. G. HASTIE, M. D., Detroit, Michigan.

[Published in The Physician and Surgeon exclusively]

In May, 1892, I ran across a case possessing many unusual features. The patient, a young unmarried woman, was suffering from a typical eczema of the left leg, extending throughout its whole length, but more particularly from the knee downward. The eczema, I may say, also appeared on the right leg and on the left side for a short time, but covered a very limited area. The left leg was swollen to a great extent, and the skin trouble had evidently run its course, uninfluenced by treatment, for some time; nor was it the most pleasing thing in the world to note that it still continued to do so. On two different occasions, however, I was struck by a very peculiar thing. The swelling of the leg almost disappeared, and that within two or three days, and was followed immediately by a marked improvement in the skin trouble. Regarding the cause of the eczema I was completely at sea, and did not learn until long afterward, and then from the patient herself. She had a reserve that on first acquaintance was hard to break through, and it took months to obtain special points of the following family and personal history.

Her father died of phthisis. All his brothers and sisters had died of this disease. Her mother is living and in good health, as are all those on her side. The young woman has always been considered healthy. She is of a quiet and reserved disposition, fairly well educated, and industrious in her habits. The only abnormal thing about her girlhood was a swelling of the feet, a trouble that would come in the morning and disappear toward night. A number of years ago she received a shock from which she says she has not yet recovered. Her brother accidentally shot himself, and she saw him in this condition. A six-months sickness followed this, in which the nervous system was chiefly involved. A little circumstance I got from her the other day it might be well to insert here. While at the cemetery shortly after her brother's death, she suddenly lost the power of her left leg and had to be taken home in a conveyance. This paralyzed state remained for three days and then disappeared as suddenly as it came. About nine months before I saw her, her left foot began to swell. Two months after this a sore broke out over the great toe. She treated it herself for some time, when the ankle of the same foot began to swell and puff up. A prominent surgeon of this city made an incision at the ankle and scraped the bone. At Harper hospital, shortly after this, he again made an incision over the toe and scraped the bone there. Nothing in particular was found and both wounds healed nicely. While at the hospital, however, a lump about the size of a hen's egg appeared in the groin, midway and slightly above Poupart's ligament. This was followed by a swelling of the leg up to the knee. She said nothing about this to anyone. Two weeks later the lump subsided and the swelling of the leg disappeared. Very shortly after coming home, the lump showed itself again and in the same place, followed by a swelling of the leg, this time up to the thigh; also followed by the first symptoms of the eczema in the shape of water blisters as large as split peas. She went again to the hospital and was treated simply for saltrheum, but remained there only one week. The lump in the groin remained fully one month before passing away, and was followed by a rapid subsidence of the swelling of the leg and of the eczema. I was treating her at the time and was greatly puzzled over the quick recovery. This favorable condition of things lasted only for a few days, however, when the leg became more swollen than ever and the eczema much worse. The cause of this, as I afterward found, was the sudden appearance of a tumor, fully the size of a man's fist—this she states positively—bluish red in color and fluctuating, about five inches below Poupart's ligament and on a line with the femoral vein. It remained over four weeks.

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* Read before the Detroit Medical and Library Association.

I had now been treating the patient for some weeks without conferring any benefit. In fact the case was daily becoming more mystifying and provoking. I asked DOCTOR CARRIER to see her. He suggested the possibility of either a malarial or a specific origin, and for some time treatment was directed in those channels, but the trouble remained the same. One morning, while at her household work, the swelling again suddenly subsided and was at once followed by symptoms of collapse, accompanied with incessant vomiting and diarrhea, which lasted for twenty-four hours. A new order of things rapidly followed. The swelling passed away from the leg, and with it in a very short time the eczema; but the abdomen began to swell, and in a few weeks' time she presented the appearance of a woman nine months pregnant. The tumor was very firm and resistant to the touch. It did not go down when the patient was asleep, and for a length of time greatly embarrassed breathing. On percussion, the tympanitic ring was very distinct but was evidently not due to gas, as was afterward proved. She suffered no pain whatever, and but for the difficult breathing already mentioned the change in her physical appearance caused her no distress.

Coincidently with the swelling of the abdomen, came a peculiar strong rigidity of the muscles of the buttocks and thighs, extending midway to the knees. This condition was only noticeable when the patient was in the erect position, and to the touch represented a truly petrified state, due apparently to a continued spasm of the muscles involved. DOCTOR CARRIER saw the patient several times, and at his suggestion **DOCTOR INGLIS** and **DOCTOR CARSTENS** were asked to see the case, when a diagnosis of phantom tumor was arrived at. **DOCTOR CARSTENS** inserted a small sized trocar into the abdomen to the depth of several inches, but with a result only confirming the diagnosis. An anesthetic would have been given at this time, had the breathing not been so embarrassed. A week or so later she seemed a little better in this respect when I decided to try the effect of chloroform. **DOCTOR JOHNSON** was with me. We got her partially anesthetized, when we were only too glad to quit, as dangerous symptoms with regard to breathing showed themselves quickly. Enough had been given, however, to test the collapsable nature of the tumor. I inserted a larger sized trocar into another part of the abdomen, again applied a lighted match to the end, but the flame burned steadily as before.

The treatment now consisted of antispasmodics of various kinds, but with apparently little effect. The case was certainly paradoxical in many ways. Here was a woman with an unusual complication of troubles, the fundamental cause of which was evidently hysteria, yet possessing none of the conventional characteristics that usually accompany that disease. In fact, everything in her temper, habits, and disposition that I have noticed up to the present time has been diametrically opposed to any such conclusion.

The tumor remained up for two months, then went down, but without producing any disagreeable symptoms. A few days after, while the patient was walking across the floor, it suddenly rose again and remained for three weeks. From this time onward it would remain up for a few weeks, then go down for a few days, rise again, and so on; the relaxation accompanied always, excepting the first time, with symptoms of collapse, vomiting, diarrhea, et cetera. The peculiar spastic condition of the thighs was always absent when the tumor was down. Last July she had a particularly severe attack. Before the tumor relaxed she vomited almost incessantly for three days. The relaxation continued for three days, when another peculiar phenomenon took place. The tumor began a regular rising and falling, so to speak, at regular intervals of a few minutes. This condition also lasted for three days. I tried in several ways to keep it down, but did not succeed. Several times I put both hands on the abdomen and though I exerted my utmost strength I was unable to prevent it from rising. Testing it in another way, I put on a regular binder of two thicknesses of sheeting, using strong safety pins, but the force exerted by the muscles was so great that the pins were torn out each time I tried the experiment. For about two weeks following this the tumor remained of medium size. During this interval, however, the left leg suddenly became as rigid as it is possible to imagine. The patient had no power whatever over it—could not move even the toes. I tried several times to bend the knee, but did not succeed. Although she suffered great pain in other parts of the body, this condition of the leg gave her no uneasiness or sensation of any kind. Anesthesia and analgesia were both absent throughout. In about eight days this phenomenon passed away, and the tumor gradually increased in size until it was larger than at any time before, measuring as much as sixty inches in circumference. It remained up until the 6th of October last. On that day she was sitting with her mother in the kitchen, when she felt something burst within her, as she expressed it, and the usual vomiting and diarrhea commenced again. This time, however, a large quantity of blood was found in the vomited material and also in that passed by the bowels. Her mother says fully a pint of blood came away in this manner. From this time onward the tumor, comparatively speaking, was very small, and the trouble was again centered in the left leg and also in the muscles of the back, which became as rigid as if an iron rod extended from the neck to the heel.

The bladder was affected at once and the urine had to be drawn daily; although she allowed three days to elapse without passing any urine before she would consent to its being drawn. The trouble gradually extended until it involved the left shoulder and arm, and they became as rigid as the leg. The arm could only be flexed by using the greatest force, and the sensations imparted to one on attempting it were as if the muscles had been fairly glued together. In about two weeks time anesthesia and analgesia, beginning at the foot, rapidly extended in the order named until all the affected area was taken in. The poor woman was now in a pitiable condition, but the end was not yet. In a short time after the involvement of the left arm the same peculiar condition began on the right side. Again commencing at the foot, it rapidly extended upward with the accompanying loss of the sensation of touch and of pain in short order, exactly simulating the extension of the trouble on the left side. As soon as the hip was reached on the right side, the patient lost control of the bowels and they moved involuntarily. Before this, I may say it was with the greatest difficulty that the bowels could be made to move. The strongest purgatives, supplemented with enemata of saturated solutions of epsom salts with glycerine, had to be used before any action could be obtained.

On November 9 the trouble had touched the right arm slightly, and also the muscles of the chest. The breathing was also becoming embarrassed. The patient kept moving her head from side to side and paid no attention to any questions asked her. A crisis would seem to be coming, nor was it long delayed. Next day on being hurriedly called I found all the members of the family round the bed expecting death at any moment. Indeed, everything pointed that way. The patient was completely unconscious and laboring for breath. The right arm and side were as rigid as the left, and the muscles of the neck and chest similarly affected. The efforts of the patient to obtain more air were distressing to look upon. A few shallow and hurried gasps would be followed by a terrific though ineffectual attempt to distend the iron-bound chest. The face was becoming deeply cyanosed and the pulse very weak. It was hard to see how she could live one hour. Now, almost everything in the way of sedatives and antispasmodics had been given her without any effect. In fact, for some time I had ceased giving her any medicine excepting that suggested by DOCTOR INGLIS, who still clung unwaveringly to the original diagnosis. I did not possess his insight, however, and could not get rid of the suspicion that a structural lesion of some kind must exist in the cord, to account, in part at least, for the remarkable phenomena already described. There was one drug she had not taken to my knowledge. I refer to hydrobromate of hyoscine. Although it seemed a forlorn hope, I injected one fiftieth of a grain in the muscles of the chest. I do not think it was more than ten minutes after giving her the injection when I found to my astonishment that the rigidity had left the arms completely. On taking hold of the legs they too were found to be rapidly yielding to the influence of the drug. The breathing became calm and easy and the cyanosis rapidly disappeared.

In short, in an hour's time, with considerable assistance, she sat up in bed, still in a dazed, semi-conscious condition. In about eight hours she had regained her senses and spoke for the first time. The second day after she was up and assisting at the housework, feeling as well as ever she had been in her life. All her symptoms had disappeared excepting the bladder difficulty, and that she attended to herself. Everything went well for one week, when the tumor suddenly reappeared and stays with her to the present. What the final outcome of the case will be it is hard to predict. In this imperfect sketch I have simply given a running history of the case, the scientific aspects of which will be taken up by DOCTORS INGLIS and CARRIER.

# ON THE NATURE OF PHANTOM TUMORS AND OF HYSTERIA.*

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IN May, 1892, I was called to see a young woman of fine physique, unmarried, and of industrious habits. She had a remarkable eczema involving the left leg and, apparently, attributable to an obstruction to the return circulation caused by a hard swelling at the femoral ring. This seemed to be a glandular enlargement resulting from an old ulcer in the leg which had been scraped on two previous occasions by some former physician. I referred the case to DOCTOR CARRIER, and heard no more of it until November, 1892, when I was called by DOCTOR CARRIER and DOCTOR HASTIE, her attending physicians. It seems that the eczema resisted all treatment until the obstruction in the groin suddenly gave way with a sensation of gurgling, the tumor at the femoral ring entirely disappeared, the eczema subsided rapidly, but the patient developed with corresponding rapidity an enormous distension of the abdomen. This distension was wholly unattended by fever or peritoneal pain, but was so great as to seriously interfere with respiration, and was evidently purely tympanitic. There was certainly no fluid effusion in the abdominal cavity. The abdominal walls were hard and rigid. The heart's action was rapid, although the heart sounds were normal.

The strange feature in the case, however, and that which forms the reason for reporting it, is this: The patient had suddenly developed an intense sensitiveness of the spine, and a spastic condition of the buttocks and thighs.

The girl was naturally well developed muscularly, but, while lying down, the buttocks and thighs felt normally firm yet unresisting. Whenever she stood up, or any strain was put upon the muscles, they were thrown into a state of tonic contraction and assumed a stony rigidity. This extraordinary hardness did not prevent her walking about or otherwise using her muscles. Voluntary control was not interfered with, but the whole thing seemed to be an enormous exaggeration of the normal muscular tone. Her appearance when walking was that of a woman at the end of pregnancy. Her patellar reflexes were exaggerated.

This extraordinary state of affairs continued for two months, her general health not suffering much, and her functions being carried on in a fairly normal way; the heart's action continued rapid, she suffered much from precordial pains and various neuralgic radiations from the sensitive spine. Mentally she was patient, adjusted herself to her difficult position with much philosophy, and did not court widespread sympathy nor exact constant attendance from her physician, nor did she change physicians.

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* Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

I saw her from time to time, and found no change whatever. On one occasion she was anesthetized. During anesthesia the swelling disappeared, but returned as the anesthesia subsided. *The swelling remained constant during sleep.*

Things went on thus for a period of eight weeks when, spontaneously, the swelling disappeared. The patient felt much depressed, almost collapsed, but before I could be notified and reach the house the swelling had returned. Later this spontaneous relaxation occurred more and more frequently and its effect lasted longer. Sometimes lasting for three days. Examination at such times showed nothing abnormal in the abdomen, and it was noteworthy that the rigidity of the buttocks and thighs was similarly absent. Patient was always depressed during such periods of relaxation. On July 29, 1893, seven months or more after the spastic symptoms began, DOCTOR HASTIE telephoned for me to go up and see her again.

I found this state of affairs: The muscular rigidity on all previous occasions had been bilateral and only brought out on the attempted use of the legs. The left leg was extended in a state of tonic spasm. There was no twitching, no jerking, no apparent variation in the muscular tension, but every muscular fibre, from the gluteals to the toes, was as hard and tense as it is possible to imagine; it was impossible to move any joint, so much as that of the toe, in the slightest degree; the attempt to raise the foot from the bed simply rolled the patient over on her right side. The right leg was normally movable. This condition persisted without remission for eight days.

When this change in the spastic condition of the leg occurred, a great change in the phantom tumor also came on. The tumor alternately came and went at intervals of about three minutes. Putting my hand on her abdomen I found the tumor hard and tense as always. Suddenly, with two or three respiratory movements, it sank down, the abdomen felt normally soft, remained so for about three minutes, then rose under the hand to its extraordinary dimensions. This went on regularly and continued so for eight days. The process of distension was not at all a passive one, but, on the contrary, one of surprising activity. I have spoken of the abdominal walls as being hard. The hardness was never the fluctuating tension of a strongly distended sac but that of muscular rigidity. How great the muscular force which was exercised can be judged from this, that a heavy double cotton binder was put on when the abdomen was relaxed, and fastened by several large safety pins. When the abdomen began to enlarge the pins were torn out and the cloth in shreds. The process was certainly not a passive distension. The variation in the circumference of the body at the abdomen was from twenty-seven inches during relaxation to sixty inches during the distension. Menses fairly regular and no discoverable ovarian tenderness.

The case has a natural interest in itself, and starts various lines of inquiry, as, for example, the nature of the original ulcer, the nature of the obstruction in the groin which caused the eczema, the relation of the sudden disappearance of the obstruction and the immediate occurrence of the phantom tumor.. I do not intend to go into the discussion of these, but have reported the case because it seems to very clearly elucidate the nature of phantom tumors. Further, because it seems to me to throw some light upon the vexed question of simulation in hysteria and neurasthenia.

Lawson Tait summarily disposes of phantom tumors in these words: "There can be no doubt, that, whatever may be its mechanism, its immediate exciting cause is intimately associated with the ovaries, as is indeed the whole group of hysterical diseases, of which it is one." He then goes on to say that "the great majority of cases of phantom tumor are really instances of spurious pregnancy incompletely developed, indeed," he says, "I am not sure but that every case is really so. those about which I have doubt being of a class which are certainly hysterical and which seem to me perfectly analogous to crib-biting among horses." In further elucidating these ideas he practically considers all cases of phantom tumor as being either due to swallowing air, and so to a pernicious habit, or as being a purely imaginary condition of a deceived woman.

There is little in medical literature regarding phantom tumors, but the general professional idea about them is probably not much different from that of Doctor Tait. Some authors consider the mechanism to be due not to swallowing of air, as does Lawson Tait, but to a condition of gaseous distension dependant on atony of the abdominal walls in whole or in part. H. C. Wood, in a few words, alludes to the muscular contraction as taking part in the mechanism.

While I recognize that the case now reported differs from many cases which have given rise to a belief on the part of the patient and even of the attending physician in the existence of pregnancy, I think that the difference is one of degree only. Cases which so closely simulate the appearance of pregnancy are apt to involve a part only instead of the whole of the abdominal muscular wall, but I believe that the mechanism is the same in those cases as in the present one. The process is one of tonic muscular spasm of a positive, active character! It is certainly not all in the nature of atony. That the swelling of every phantom tumor is not due to atony of the muscular walls of the abdomen, nor simply to gaseous distension from swallowed air, would seem to be disproved at once by the well-known fact that the tumor always disappears under chloroform narcosis. If atony were the cause, then chloroform ought to increase rather than diminish the trouble. The chloroform causes entire muscular relaxation. This alone demonstrates that the mechanism of phantom tumor is in the nature of spasm rather than atony. The fact that phantom tumors disappear under chloroform has been looked upon as showing that the affair was a simulated one, was voluntary. This does not by any means follow. There are many muscular processes constantly carried out without voluntary control and it is inconceivable that any voluntary attempt at deception could be carried on for months at a time, as is the case with women who believe themselves pregnant. In the present case one could not imagine such a long continuance of muscular activity being voluntary. Above all, the steady duration of the spasm during sleep, effectually disproves the possibility of its being an intentional performance.

The phenomenon of muscular tone in health is evidently due to a ceaseless flow to the muscles of a series of motor impulses from the spinal centers. These continuous impulses are so slight as to produce no movement, so uniform as to produce no variation, but they keep each muscular fibre in a slight state of tension. Now, to explain the present case. Imagine that from the spinal cord there are going out to the muscles a similar series of motor impulses just as numerous, just as uniform, but of vastly greater intensity, and so causing a continuous unvarying but correspondingly more intense contraction of the muscular fibres, and there would be produced just that tonic spasm which was evident in the abdominal muscles. In our patient, while she lay quietly in bed, not using her legs, the muscular tone was normal; the series of motor impulses was of normal intensity, but when she stood or used the legs there came on a general rigidity of the whole muscular substance of both legs. The condition again was simply an exaggeration of the phenomena of muscular tone. The normal muscular tone is essentially a reflex act. That series of slight motor impulses which keeps up muscular tone is the result of a corresponding series of incoming sensory impulses; impulses so slight as never to rise to consciousness, but sufficient to keep up a constant reflex activity.

In our patient this whole process was exaggerated. The necessary movements of the abdominal walls in respiration sufficed to increase the intensity of those sensory impulses which start the reflex act and so kept up the *steady* spasms of the abdominal muscles. As soon as she moves her legs a similar increase in the sensory impulses set up a similar increase in the intensity of the muscular tone.

The analogy goes still further. Muscular tone involves all the muscles alike. So in this case the tonic spasm was uniform in all the muscles again; normal muscular tone permits voluntary use of the muscles, and in our patient the thing at first most striking was her ability to use her muscles voluntarily. Looking at her muscles, full, hard and rigid, it seemed as if the limbs would be held against any use, but, as in normal muscular tone, the flexors and extensors are held equally balanced, so here the exaggerated muscular tone held flexors and extensors balanced, and any voluntary motor impulse was obeyed. Indeed, nothing could better illustrate the difference between voluntary and involuntary, between cerebral and spinal muscular actions.

The phenomenon, then, can best be regarded as simply an example of muscular hypertonicity—an exaggeration of the normal activity of the spinal cord as independent of the brain. I have been the more anxious to establish the nature of the mechanism of phantom tumor, and of the associated spasms in this case, on account of the light these matters throw upon the phenomena of hysteria and neurasthenia.

There is a very general feeling among both physicians and laymen that hysterical aad neurasthenic patients are either fools or knaves. This estimate crops out in jests or expressions of doubt. It crops out in medico-legal testimony in the form of disbelief in the disability of claimants. Yet there is no question in the minds of all careful observers that behind all the exaggeration or self-deception of the hysterical or neurasthenic there is a solid basis of fact, a positive defect in the nervous mechanism, even if it be a character which does not admit of ocular post-mortem demonstration.

This fact, acknowledged, as it is, by neurologists and the more careful practitioners generally, ought to obtain general recognition, for much injustice results from the present attitude. In the case here presented I think we may consider the following points reasonably well established: First, the girl is not guilty of intentional simulation. Second, the defect in the nervous mechanism is not due to a fixed organic change. The fact that for a long time both legs were affected with a moderate muscular rigidity, and that on other occasions only the left leg has been affected with a muscular spasm of enormous intensity; the fact that these phenomena as well as the abnormal rigidity have been subject to sudden and total alternations; further, the absence of any muscular atrophy, all these effectually disprove the existence of a fixed lesion.

If the defect, then, is neither a simulation on the one hand, nor an organic change on the other, how are we to explain the symptoms? It seems to me that the explanation lies in the failure of the normal inhibition which habitually controls the relations of the various parts of the cerebro-spinal axis. We are well accustomed to certain phases of inhibition, as, for example, that of the mechanism regulating the circulation and respiration, but so constant and unobtrusive is the inhibition which the higher nervous centers exercise upon the lower that we do not realize how profound this influence is until an interruption of the normal control allows some lower center to carry out its function in excessive or erratic ways.

In the present case the varying and erratic symptoms, the phantom tumor, the hypertonicity, the occasional tonic spasm are all parts of our whole; they are simply the evidences of an excessive action of the spinal centers, an action differing from the normal simply in degree, and due to the unrestrained activity of the lower centers. The cerebral inhibition has failed. The symptoms are essentially hysterical. They are hysterical, not in the sense that they are intentional or simulated, but in the sense that hysteria consists in an interruption of cerebral control. This patient presents none of the mental characteristics associated in the public mind with hysteria; she is not emotional nor fond of exciting notice or sympathy. Neither has she any evidence of uterine or ovarian irritation, yet she is hysterical. The symptoms are liable to the sudden variations of hysteria; they acknowledge no fixed organic cause and changing they leave behind no organic defects. I have no doubt that some profound mental impression *might* cause an entire disappearance of all the symptoms, just as occasionally happens in the forms of hysteria in which the loss of inhibition manifests itself in emotional weakness or hysterical paralysis. In general terms we may sum up by saying that the problem before us in this case as in other forms of hysteria, is that of reëstablishing the normal inhibition. It deserves also to be said that if the inhibition by the higher centers is not reëstablished in time, the excessive and uncontrolled activity of the lower centers may result in organic changes. This is the explanation of cases clearly hysterical at the outset finally manifesting organic local defect.

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# A SHORT ACCOUNT OF THE ENGLISH COMMISSION TO INDIA TO ENQUIRE INTO THE ETIOLOGY OF CHOLERA, WITH SOME OBSERVATIONS MADE DURING THE RECENT EPIDEMIC IN EUROPE.

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The epidemic outbreak of cholera in Egypt in 1882 and 1883 gave a fresh impetus to the study of this disease, and the governments of England, France, and Germany sent men to Egypt to make investigations during the epidemic, and find out if possible the cause.

**Professor Strauss**, of Paris, considered that he had found an organism which had an intimate relation to the disease, and he sent specimens to the president of the Medico-Chirurgical Society, of London, with the request that they be shown to the society for their opinion. This was done, and, after examining the specimens, the Fellows of the society requested the president to appoint a committee to examine and report on them. He appointed **Doctor Klein**, **Professor Victor Horsley**, and myself as the committee. We made a careful examination of **Professor Strauss**'s specimens, and reported that we could find nothing in them to justify the conclusion that he had found an organism which was the cause of cholera.

**Doctor Koch**, who was sent by the German government to Egypt, also announced that he had found a specific organism, a straight bacillus like that of glanders, which he considered further investigation would be likely to demonstrate was the special cause of the disease.

To carry out this object, the German government in 1883 sent **Doctor Koch** to India; and early in 1884 he announced that this organism, now described, however, as curved or comma-shaped and not straight, must be looked upon as the essential cause of cholera, on the grounds, principally, that it was always present in the discharges of this disease, and that it was not found in any other disease, and that a causal connection had been demonstated by the circumstance that comma-shaped organisms had been found in a tank in Calcutta near a village in which the people suffered from cholera, and that the disease diminished simultaneously with the diminution of the comma bacilli from the waters of the tank.

The importance of this discovery was at once obvious, and it became necessary that measures should be taken to have it corroborated, since, if this were done, new means would have to be taken in dealing with the disease in India and elsewhere. With this view **Sir Joseph Fayrer**, physician to the Council of India, suggested to the Secretary of State that the government should institute a special inquiry into the whole subject.

## THE FORMATION OF THE COMMISSION.

Soon after this, I received an invitation from **Sir Joseph Fayrer** to meet **Lord Kimberley** and some of the leading members of the India Council, at his house to discuss the matter, and it was then arranged that I should meet the whole council at the India office and state my views as to the relation of micro-örganisms to disease, and illustrate the subject with a microscopical demonstration. This I did and the council decided to send me to India, and to join with me in the work there **Doctor D. D. Cunningham**, a professor in the University of Calcutta, who had received special training in Germany under **Pettenkoffer** and others. At this stage of the proceedings, **Doctor Klein**, through the influence of some of the Fellows of the Royal Society, was placed upon the commission.

## DEPARTURE FOR INDIA.

Having got our apparatus together, we started for Bombay in the P. & O. steamer Ancona on the 6th of August, 1884. We had a pleasant passage down the English channel and through the bay of Biscay to Gibraltar, where we stopped a day. The weather was cooler here than in London, the thermometer being only 70° at midday, while it was 74° at the Albert docks in London when we left. We had pleasant weather in the Mediterranean with increasing temperature, until at Malta the thermometer registered 84° at midnight. We carried this temperature to Port Said, and through the Suez Canal to Suez. The voyage so far had been uninteresting, as there was nothing much to be done on board, except the usual routine. At Suez we had some fun with enormous sharks that came to the surface astern to seize anything eatable that was thrown overboard. We made some good practice at them with the ship's rifles, but the moment one was hit, it was attacked by all the others, who were attracted to it by the flow of blood, and they all went to the bottom and did not appear again for some time, not, I suppose, until they had made a meal of their relative. We were detained here for two days, waiting the arrival of some people coming overland, and I got some good fishing on a reef in the bay. We left Suez on the 22d of August, and next day were off Mount Sinai. The weather now began to be uncomfortably warm, and from here to Aden we had a light northerly wind, moving about as fast as the steamer, and directly after us, so that there was no circulation of air through the ship. The heat also was peculiar, and reminded one of that coming from the mouth of an immense furnace. Several of the passengers gave way under this intense heat, and we had great difficulty in saving two of them. Two steamers, that came down the next day, lost, the one four passengers, the other ten, all from heat apoplexy. I have seen the temperature much higher in the Red Sea and Suez Canal than we had it this time, as the thermometer was never above 102°, but I never experienced such oppressive and suffocating heat anywhere at sea before. It is, of course, often met with in some places on shore. After leaving Aden and getting out into the open sea we had cooler weather, but a heavy sea and strong breeze necessitated our keeping all ports closed on one side.

### ARRIVAL AT BOMBAY.

On the 2d of September we arrived at Bombay, and found that the rainy season, being unusually late, was not yet over. We put up at the Great Western Hotel, and proceeded at once to look over the situation. We found everything flooded from the rains and reeking with moisture, so that a coat hung up in the bedroom at night was dripping wet in the morning. Leather shoes in a day or two became covered with a dense growth of mould. On visiting the hospitals, we found that there was very little cholera in Bombay. We got a laboratory ready and prepared our reagents, and after a few days we got one or two cases, but they came in slowly; we began to be afraid we should have a poor season. The rains, however, stopped and the country began to dry up, and we soon had enough material to work on.

In India the heat is very different to that in this country, and it is never safe to walk, even a short distance, in the sun for fear of sunstroke; and this is the case when the actual heat, as registered by the thermometer, is not so high as in the hottest days here. In consequence of this, when going even a short distance, it is customary to hire a small carriage called a Victoria, numbers of which are to be found at various stands throughout the streets. From the nature of our work and the constant attention it required we did not have much opportunity to see a great deal of the city or surrounding country. We did, however, pay a visit to the caves of Elephanta, which are very curious. They consist of several caves in the face of a rocky cliff, and in them are a number of immense idols, images of BRAHMA, hewn out of the solid rock. These caves are in charge of an ancient individual, who gave us a long history of what they were supposed to represent, a description which did not impress me much at the time, and which I have consequently forgotten.

We arranged things so that one of us was always on duty and at hand when a death occurred, as our great object was to make a post-mortem examination directly after death, and this we did invariably, sometimes within fifteen minutes. Our work went on from day to day in this manner with a slight increase in the number of deaths, and the only break we had was a trip to Poona to see the governor of the province, SIR JAMES FERGUSON, which occupied two days.

This trip was a very interesting one, as the railroad was built in a zigzag up the mountains, or, as they are called there, ghauts. The scenery was very wild and imposing and the vegetation most luxuriant. I was told that tigers were often seen in the jungles through which we passed, but we saw none. I did see some large monkeys. The jungle might have been full of animals without our seeing any, as it was so dense.

On the 8th of October DOCTOR KLEIN left for Simla to see the government of India in regard to some misunderstanding about our work, and I was left to finish the work and then get the apparatus packed up and transported to Calcutta, where we had arranged to carry on half of our investigation.

## INVESTIGATION IN CALCUTTA.

Having settled up matters and packed the apparatus, I left on the 11th for Calcutta, a journey of over fourteen hundred miles across the continent of India. This was safely accomplished, although the heat was intense. The government furnished me with a drawing-room and sleeping car for myself and assistant, and we traveled in comparative comfort. I arrived at Calcutta at daylight on the 14th, and immediately set to work and arranged the apparatus, and commenced operations, the cases coming in more rapidly than in Bombay. DOCTOR KLEIN did not return from Simla until the 23d. Work went on in the usual manner until the beginning of December, when we packed up our apparatus and prepared to return home, having spent over three months on the investigation.

## RESULTS OF THE INVESTIGATION.

Having now given a sketch of our work, I will describe the investigations we made and some of the results we arrived at.

In the first place, DOCTOR KOCH stated that the number of comma-shaped organisms in the intestinal tissue and contents is in proportion to the acuteness of the attack, and that these organisms generate within the body a ferment by which the system is poisoned.

Our observations are in direct opposition to these statements of KOCH. We made a number of post-mortem examinations in cases where death had followed in from eight to twenty-eight hours after the commencement of the attack, and the examination was made in from a quarter of an hour to an hour after death. We found that the changes in the intestines were very slight to the naked eye, and these changes existed throughout the intestines. KOCH stated that the comma bacilli were found in the lower part of the ileum. This we found to be the case; but this does not harmonize with the view that the comma bacilli are the cause of the disease, as the intestinal changes were the same throughout the intestine. I made numbers of sections through the wall of the intestine in different parts, in every case, after hardening the tissue, and in these acute typical cases, where the post-mortem was made directly after death, there were no comma bacilli or any other organisms in the wall of the intestine.

Further than this we found acute typical cases where the fluid in the intestinal canal contained scarcely any comma bacilli at all. Now, to produce the large amount of chemical ferment necessary to set up the disease, they must have been present in large numbers in the intestine before the symptoms appeared, as it would be impossible for absorption from the cavity of the intestine to take place after the disease is established, when the wall of the stomach and intestines is pouring large quantities of fluid into the cavity as fast as possible. This is manifestly an absurdity, and there is no evidence whatever in support of such an assumption.

Then, again, the comma bacilli not only vary in number in different cases, but also in their character, and, as I will show further on, these different forms have been isolated and shown to be different species.

To give some idea of this difference in quantity and character, I will quote from our post-mortem notes:

*Case II.*—Death after forty hours. Post-mortem in four hours. Comma bacilli abundant, small and large straight bacilli.

*Case XI.*—Death after eighteen hours. Post-mortem in half an hour. Comma bacilli tolerably numerous. They vary in length, and particularly in thickness. Numerous straight bacilli.

*Case XIV.*—Death after twelve hours. Post-mortem in half an hour. Comma bacilli very scarce.

*Case XVI.*—Death after eighteen hours. Post-mortem in three-quarters of an hour. Very few comma bacilli. Other forms very numerous.

*Case XXIII.*—Death in twenty hours. Post-mortem in one and one-half hours. Very few comma bacilli; they are distinctly thinner than those of other cases.

*Case XXXII.*—Death after twenty-seven hours. Post-mortem in two hours. Comma bacilli tolerably numerous. They are of different lengths and thicknesses.

*Case L.*—Death after nine and one-half hours. Post-mortem in one hour. Comma bacilli of three different kinds, distinct by their various thicknesses, some exceedingly minute, others five or six times as large.

In these cases, although curved-shaped organisms were found in all of them, they were not the same forms, and in a number of cases none corresponding to Koch's description were found.

Some typical cases show that the whole of the inside of the intestine presents the same appearance and is full of fluid in which float mucous flakes. The comma bacilli are found in the lowest part of the canal in these mucous flakes, which are practically dead tissues, and they are more numerous the farther down we go. These facts clearly point to their being putrefactive organisms.

We made careful examinations of the blood of living patients, and could find no organisms of any kind whatever.

From what I have said it will be seen that there is no direct relation between the numerous organisms found and the gravity of the disease, and that these organisms are not found in the blood or any part of the intestinal wall, even in the most acute cases of cholera, where the examination is made directly after death.

Secondly, DOCTOR KOCH states that these comma bacilli are not found under any conditions other than in connection with cholera. A comma bacillus, apparently identical with this one described by KOCH, was found in the discharges during an epidemic of diarrhea in Cornwall. I have found them in the dysentery of phthisis, and in enteric catarrh. They have been found in the mouth, in the discharges in cases of so-called cholera nostras, and in other situations. When these different forms are cultivated they present appearances which are considered to be sufficient to separate them into distinct species.

### COMMA BACILLI IN THE TANK WATER.

The most striking point which appeared to give support to KOCH's theory was the presence of comma bacilli in a tank which supplied certain cholera affected villages near Calcutta with water.

This tank was visited by us on the 26th of November, and some water taken for examination at a part of the tank where the water seemed very dirty, and at a spot about twenty yards from a house where a case of cholera occurred during the first week of November. This water was used by the people living round the tank for all possible purposes, including drinking. We found numerous comma bacilli identical with those of KOCH, both by microscopical examination and by cultivation. These had presumably come from the case of cholera which occurred during the first week in November, but no other case occurred, at any rate until after the middle of December, when we left Calcutta. Here the comma bacillus was in the most favorable condition to produce the disease, and that it did not do so goes far to prove that it has nothing to do with the production of cholera virus. These tanks, as they are called in India, are simply ponds, varying in size, and they have one or more flights of steps in the banks extending for some depth into the water. The natives every day walk down these steps into the water, and, standing in it up to their waists, perform their ablutions. They wash their whole bodies and rinse out their mouths, and you can often see them drinking the water. Round these tanks are numbers of houses, the filth from which drains directly into the tank. The clothes of all the poorer people are also washed in the tank water. There are generally a number of animals kept in these villages, and their quarters also drain into the tank, so that it may be possible for you to conceive the state of the water.

When it is understood that there were about two hundred families living round the tank first described, and that a case of cholera occurring in the first week of November was not followed by any other case up to the middle of December, and longer as far as I know, it must be admitted that the cholera bacillus which we found in this tank on the 26th of November, if it were the cause of cholera, had made little use of its opportunities.

We examined the water in another tank and found the cholera bacillus of KOCH, and here there were about two hundred families living under similar conditions to those described before, and here there was not a single case of cholera during 1884.

In another case nine deaths occurred from cholera in three families of rich Hindoos, who received the city water from their private hydrants. Behind their houses was a tank surrounded by the houses of a number of the poorer classes, who took their water from this tank, and used it as I have already described. The rich Hindoos had nothing to do with the water of this tank in any way. Among the low caste or poorer people living round the tank, there was not a single case of cholera in 1884, and we found the water of the tank teeming with the so-called cholera bacilli. It is difficult for anyone who has not visited the east to realize the conditions that exist among the native population in the towns in India. We make such a fuss about the possible contamination of our drinking water with sewage, while in India it is hardly possible to examine any well from which drinking water is taken without having visible evidence of liquid sewage percolating through the defective walls of the wells. And yet we examined fatal cases of cholera occurring in the poorest class of houses, without the slightest attempt at any sanitary arrangement, and found that one or two deaths would occur in a crowded part, and no more cases would appear. Now, if cholera can be communicated from the sick to the healthy, this must have happened in some of the numerous cases we made careful examination into, but this was not the case.

## OPINIONS OF COMMITTEE APPOINTED TO RECEIVE REPORT.

After our return to London, a report was submitted to a committee appointed by the Secretary of State for India, consisting of the president of the Royal College of Physicians and other eminent scientific men.

It may be of interest to state a few of the opinions on this subject given by members of this committee, who were thoroughly familiar with cholera.

**Sir William Gull** stated that it appeared to be abundantly proved that cholera is not an infectious or contagious disease. The soil and other local conditions of the place in which it prevails are responsible for it, and not the sick who suffer and die of it. It is by sanitary measures and not by isolation of the sick that its occurrence and spread can be prevented.

**Doctor Marston** agreed with **Sir William Gull** that cholera does not produce cholera in the same way that small-pox and scarlatina produce those diseases.

**Doctor Norman Chevers** said: Living as I and my family did for many years with absolute impunity in quarters close to a hospital, which, during that time, contained many hundred cases of Asiatic cholera, I, of course, absolutely disbelieve in sanitary cordons and in systems of quarantine as means of defending countries from cholera invasion.

**Doctor Marston** stated that there is no satisfactory evidence, in the logical sequence of events, to prove that an epidemic of cholera has ever been lighted up in a distant and previously healthy place, by the arrival of a cholera patient. Cholera spreads along rivers, but against their current in Bengal. It invariably advances from Bengal proper to the Himalayes and never the reverse. It does not radiate from a common center of infection, nor usually retrograde. Only a small proportion of villages are attacked in cholera epidemics covering a large district or province where there is the freest communication, one with another.

These are the opinions of men, who, with the exception of **Sir William**

GULL, have lived many years in India, and who have been intimately associated with cholera in all its varied aspects.

Before leaving India we handed over most of our apparatus to the government of Bengal for the use of DOCTOR D. D. CUNNINGHAM, who was associated with us in Calcutta, and who carried on the investigations after our departure.

### INVESTIGATIONS OF DOCTOR D. D. CUNNINGHAM AFTER THE COMMISSION LEFT INDIA.

It is interesting to note some of the results that he obtained, which he published in 1891, as they throw a new light on the various points where it was greatly needed. I have already mentioned that comma-shaped bacilli have been found by various observers in conditions where no cholera was present, and in some cases under normal conditions. These on cultivation showed slight differences, which, however, were considered sufficient to distinguish them from the comma bacillus of KOCH. Now, this comma bacillus of KOCH is spoken of as if it were a perfectly distinct organism, and the only comma-shaped microbe found in cholera. This is not the case. I showed in Calcutta four different comma bacilli in one field of the microscope in a preparation made from a cholera discharge. These were all quite distinct by their size and thickness, and were readily distinguished by those who were present at the demonstration. DOCTOR D. D. CUNNINGHAM has shown that there are no less than ten different forms of comma bacilli found in cholera discharges, which are morphologically and physiologically distinct. His experiments have been most carefully worked out on typical cases, and the results were shown at the International Congress of Hygiene in London in 1891.

DOCTOR FRANZ, of the Austrian army, a careful observer, states that there are at least sixty-one species of bacteria found in ordinary cases of cholera.

In DOCTOR CUNNINGHAM'S published work, he says, in speaking of the results he obtained:

"In the outset it is clear they show that KOCH'S theory, that cholera is primarily due to the access of a specific comma bacillus to the interior of the intestinal tract, must be finally abandoned as inconsistent with fact. KOCH'S comma bacillus certainly does occur in association with cholera in Calcutta, but it is not the only species which does so, and indeed, it does not appear to occur by any means so frequently as the other species taken as a group do; for taking the sixteen cases of cholera from which cholera bacilli were obtained during the past year, we find that in four of them only was the species which was present, even doubtfully, that described by KOCH."

### PECULIARITIES OF CHOLERA EPIDEMICS.

I will now review some of the work that has been done up to the present time, and quote the opinions of men, who, from their position and experience, are able to speak with the highest authority on this question.

BRIGADE-SURGEON J. B. HAMILTON, in a paper read before the Medical Society of London on the 15th of December, 1892, said that—

"To show the difficulties that beset the investigator, I may here quote an instance given by MR. MACNAMARA where cholera made its way to Bombay from the east of India toward the end of the rains in 1849, in spite of the southwest monsoon which blew during the week with a force equivalent to a velocity of fifteen miles an hour in a direction contrary to that in which the cholera advanced. These are the pitfalls which beset the steps of the investigator and upset all theories.

"We see cholera thus advancing in Bengal in a northwesterly direction, dying down in winter, and again breaking out and resuming its upward course as the weather gets warm, the outbreaks culminating during the monsoon. This is what took place during the great epidemic of 1878–79. An overflow from the epidemic area occurred in July, and advanced rapidly to Oudh, causing great mortality. During the winter it subsided, but reappeared in the summer of 1879, and then the epidemic swept over the Punjab and right into Cabul through the Khyber Pass, carrying off tens of thousands of natives and many Europeans.

"Here it is worthy of remark that while the epidemic was raging in the Northwest Provinces and Oudh in 1878, the railway trains ran daily into the Punjab carrying numbers of natives from the infected districts into those that, up to that time, remained free, and though numerous cases occurred in the trains, and many were attacked and died far up in the Punjab, the disease never became epidemic there during 1878, and, in fact, refused to break out in the uninvaded districts.

"Next year, when cholera was raging in the Punjab, in a similar way many people suffering from the disease were carried south by the railway to the country which had been swept by the epidemic in 1878; again it refused to break out in the districts that had suffered during the previous year.

"Thus we see cholera advancing against the flow of rivers, and actually refusing to ignite in uninvaded districts, or break out again in the country over which it had passed the previous year, though the bacillus (if there be one) must have been sown broadcast over the area.

"Personally, I can say that I have never seen cholera break out among attendants, though of course now and then it happens that they are attacked, but not out of proportion to the rest of the population.

"In one great epidemic in India, of which careful records on this subject were kept, it would appear from the returns that the safest places to reside in were the wards of cholera hospitals.

"A very remarkable instance of cholera being (presumably) carried by air occurred at Subathoo and Kasauli, two hill stations near Simla, a few years ago. Subathoo is 4,250 feet above the sea, Kasauli is 6,300 feet high; the stations are seventeen miles apart as the crow flies, and separated by deep valleys.

"The population of the intervening country was free from cholera, as also were the bazaars and barracks, yet on the same day, the 12th of September, after a heavy fall of rain, cholera broke out on the top of each hill simultaneously, lasted for three days, and ceased on the same day, the 15th, after which there were no further attacks.

"I have merely quoted this instance to show how arguments in favor of any theory can be adduced, and what extraordinary paradoxes are encountered in tracing out epidemic cholera. So far as we at present know, cholera appears to be an 'infectious disease,' not, indeed, in the manner the ordinary term indicates, as illustrated by small-pox or scarlet fever, but it may be defined as a disease caused by the reception from without of a specific infective material, into previously healthy bodies, under some special influence, possibly of the atmosphere, and that this material so introduced acts as a poison.

"We see in India that you cannot light up an epidemic in an uninvaded district, and that, though cases of cholera are constantly being carried by the train into countries free from the disease, it does not, therefore, become epidemic; in fact, that the epidemic progression is quite a separate matter.

"Acknowledging then, that we have much yet to learn of the cause of cholera, what advice are we in a position to give as the result of what we know?

"First, as to quarantine. Quarantine may be summed up as impracticable, useless, and vexatious. At the same time no precautions should be omitted at all ports to examine ships entering, and in the event of cholera having been on board, the vessel should be disinfected, the sick removed to proper isolated hospitals, and the crew kept apart for at least ten days subsequent to the appearance of the last case."

### OPINION OF DOCTOR W. J. SIMPSON, HEALTH OFFICER OF CALCUTTA.

In the discussion that followed the reading of this paper, **DOCTOR W. J. SIMPSON**, health officer of Calcutta, said:

"There can be no doubt, for example, that even in the east the evidence is overwhelming in favor of liquids used by man for drink being the most frequent media or vehicles for the cholera poison, and that the air is not a suitable vehicle unless under special conditions of moisture, as may exist in low-lying land near a marsh or river, or under special conditions of air and light, as in dark or unventilated rooms or huts, or in the forced emanations from contaminated sewers. It is by reason of the peculiar treatment which water receives in India, especially in Bengal, that the disease continues to break out yearly in an epidemic form. Calcutta is not the only town that has had its cholera decreased more than half by a pure water supply. Lahore, Delhi, Nagpore, and Bombay are in the same position. I have travelled a good deal in the east, and everywhere have taken the opportunity of inquiring into the cholera history of the locality visited, and everywhere I have found the water supply to constitute the most important factor in the decrease of cholera. Such is the case in Batavia and Pondicherry, which enjoy comparative immunity by reason of their artesian wells, and similarly in Rangoon, Colombo, Kandy, Singapore, and other towns in the east. My experience leads me to the opinion that widespread local epidemics are mainly due to contaminated water. I acquired an early lesson to this effect in 1883, when I visited Damietta, in Egypt, to inquire into the cause of the outbreak there, which was the first town affected in Egypt. Damietta is situated on the Nile, which forms a peculiar cup-shaped basin in front of the town during the period that the river is low. The river at this time was particularly low, so as to form almost a stagnant pool, which supplied the inhabitants with their drinking water, and at the same time served as the cesspool for the town. A large fair was held, at which 15,000 persons were present, some of whom came from suspected districts; cholera broke out, and raged with virulence, until suddenly the Nile rose and swept out the polluted basin, and cholera disappeared at once."

**MR. MACNAMARA** also discussed the paper and explained that, "although the improved water supply to the town of Calcutta had only commenced in 1873, the troops in Fort William had been given perfectly pure water from and after the year 1863, for in that year the covered tanks constructed by the government outside the fort had been completed, and from this time a constant pure supply of water had been delivered to the troops; whereas, previous to 1863, they had consumed the river Hoogley water, polluted as it was with dead bodies and the drainage of Calcutta. The effect of the change in the water supply had reduced the death-rate from cholera from twenty per thousand to one per thousand, and that in spite of the existence of Asiatic cholera constantly among the vast native population in proximity to Fort William."

## REVIEW OF RECENT WORK.

Doctor A. J. Wall, an Indian medical officer, in a work published at the end of last year, in speaking of the etiology of cholera, says:

"It must be admitted in the beginning that in a large number of cases of cholera a bacillus answering in appearance to Doctor Koch's comma bacillus can be found in the evacuations. In many cases it occurs in large numbers, in others it can only be demonstrated with great difficulty, and in others the cultivations, even when repeatedly made, fail to give evidence of its presence, as in cases we shall refer to hereafter. We have seen many such cases. The severity of the disease, moreover, bears no relation to the number of bacilli present. In a peculiarly severe case which we witnessed, an observer, who had been one of Doctor Koch's assistants, had the greatest difficulty in finding even a few. It must be admitted also that in some cases of cholera the bacillus, even if found, may present anything but a typical appearance, and this is also true of the cultivations made from many cases. Still the fact remains that in a large number of cases of Asiatic Cholera, a bacillus of characteristic appearance can, after more or less investigation, be found. But when we go farther than this, the question becomes surrounded with difficulty.

"But these facts are not sufficient to establish Doctor Koch's position that the comma bacillus is the sole efficient cause of cholera, and that cholera cannot exist without the presence of the comma bacillus.

"In the pathological laboratories of Germany and elsewhere may often be seen animals suffering from the effects of the administrations of cultivations of the comma bacillus made in different media, and in many cases the animals die. We have most carefully watched the symptoms in many of these animals and have examined the viscera with minuteness after death, but we have never seen anything that could possibly be mistaken for cholera by anyone conversant with the disease. It is quite true that cultivations of the cholera bacillus can produce fatally toxic symptoms, but that is, of course, a totally different thing to producing cholera.

"It was next determined to see what effect the cultivation would have on the human subject. A portion, therefore, of a typical cultivation of comma bacilli, exactly like the one that had been proved to have toxic properties, was taken internally, mixed with water, by an individual with whom we are intimately acquainted. But though this individual is very sensitive to cholera poison, never passing through an epidemic without having diarrhea, which on one occasion caused severe symptoms, the cultivation produced nothing whatever of a choleraic nature on him.

"Doctor Max v. Pettenkofer and Doctor Emmerich appear in their experiments to have suffered slightly from diarrhea, but from no malady in any way approaching cholera. They also seem, from the account given, to have been somewhat impressed by the risk to which they were exposed, and it is probable that the diarrhea had its origin in this condition of mind; but in the symptoms, as related by them, there is nothing of a choleraic nature. But, though this was so, yet the comma bacilli were proved by bacteriological investigation to have multiplied themselves in the intestines, the dejections being crowded with them; but the result, as regards cholera, was absolutely negative.

"To be perfectly certain as to the effect on the human subject we repeated the experience, and with exactly the same result. Nothing in the remotest degree resembling any condition of cholera could be produced.

"Doctor Koch believes that for the successful production of cholera by the comma bacillus an alkaline condition of the alimentary tract is necessary. Nature, it may be remarked, does not seem to endorse Doctor Koch's views, and usually produces cholera in an acid condition of the stomach. It does not require a large clinical experience of cholera to abundantly verify this fact. Some of the most acid stomachs we have ever tested have been in pronounced cholera cases. But Doctor Koch expressly states that acidity of the stomach is rapidly fatal to the comma bacillus; so that, if Doctor Koch's view be correct, the comma bacillus produces cholera in a condition of the system which is absolutely fatal to it, without modifying that condition in the least.

"All observers agree that the comma bacillus is speedily deprived of life by being dried. The observations are too numerous to leave any doubt on this subject. Two hours are more than sufficient to kill the bacillus if it is dried. Doctor Koch himself says 'even when the pulpy mass made by a cultivation on potatoes was dried, the comma bacillus did not retain its vitality for longer than twenty-four hours.' But if there is anything certain in cholera, it is that epidemics have repeatedly had their origin in clothes and linen that have been worn by cholera patients being admitted into uninfected places. These clothes have been kept in the usual dry condition that clothes are preserved in often for a considerable time at high temperature, and yet an outbreak of cholera has followed their introduction."

## ON THE VALUE OF THE COMMA BACILLUS IN THE DIAGNOSIS OF CHOLERA.

"But there is another aspect of the comma bacillus that must be treated of here, and that is Doctor Koch's assertion that it is invariably found in Asiatic cholera; and with this we must consider the question of the diagnosis of cholera by means of the comma bacillus. It is asserted by its partisans that the comma bacillus is of the highest value as a means of diagnosis. Fortunately we have the full details of the beginning of an outbreak, which will enable us to judge of its merits as a method of diagnosis, in which the history is told by its own advocates, so that it is above suspicion.

"Cholera, as it is well known, broke out in Hamburg in August, 1892. Cases are said to have occurred as early as the 16th or 17th, but Hamburg was not declared by its authorities to be infected till the 23d of August. But the Hamburg officials do not now deny that before the 23d of August one hundred and twenty-eight persons had perished in the city of Asiatic cholera. It was a matter of common knowledge that cholera was in the city before August 23d, so that some of the foreign consuls residing in the town were on the point of holding a meeting to consider the urgent need of discontinuing, on their own responsibility, to issue clean bills of health to ships leaving the port. **Herr Professor Rumpf** has explained how it came to pass that it took a complete week to find out that cholera was in the town, and his explanation is worthy of careful study. He states that the first case resembling cholera that came under observation at the New Hospital was admitted on the 16th of August, and the patient, by name **Kähler**, died on the 17th of August, but that the cultivations made from the patient gave, on the 19th and 20th of August, a completely negative result, and that the case was therefore diagnosed as only cholera nostras.

"The second suspicious case at the New Hospital was admitted on the 21st of August and died soon after. In the meantime five other suspicious cases were admitted into the Old Hospital on the 20th of August, and ten more on the 21st of August, and on the 22d of August the comma bacillus was found in them, and on the same day the bacillus was found in the second case at the New Hospital. On the 22d of August also comma bacilli were found in cases treated at the Seamen's Hospital, and lastly on the same day (the 22d of August) the cultivations still carried on from the first case, the man **Kähler**, which occurred on the 16th of August, and which had been diagnosed as cholera nostras, gave evidence of the presence of the comma bacillus. Then, and not till then, was Hamburg declared infected. **Doctor Koch**'s method of diagnosis will, then, in highly competent hands, enable cholera to be diagnosed almost within a week of its outbreak, and after one hundred and twenty-eight persons have fallen victims to it. Cholera penetrated to all quarters of the town, the mortality was appalling, and ships laden with this deadly freight were dispatched to all parts of the world; these were the results of trusting to the comma bacillus as a means of diagnosis.

"We have on the one side the statement of **Doctor Koch** and his disciples that the comma bacillus is invariably found in Asiatic cholera. But we have on the other hand equally positive evidence that it cannot always so be found. MM. **Lesage** and **Macaigne**, of the Institut Pasteur, have most carefully investigated the patients suffering from Asiatic cholera in the Saint Antoine Hospital in Paris in 1892. There were two hundred and fifty-one cases admitted, and there were ninety-five deaths. Of these two hundred and fifty-one cases two hundred and one were specially studied bacteriologically, and no comma bacilli could be found in forty-five of them, or 22.4 per cent. Of forty-seven fatal cases specially studied as regards the contents of the intestine, no comma bacillus was found in thirteen cases, or 27.6 per cent. They remark: 'We would insist specially upon this, that the cases of cholera without the comma bacillus were observed at the same time, and during the whole of the epidemic, with the cases in which the comma bacillus was present. Clinically it was impossible to distinguish the two classes of cases, only by bacteriological examination could any difference be established.'"

## EXPERIENCE IN SPAIN IN THE EPIDEMIC OF 1885.

"We have also the evidence on this subject given by **Doctors Roy, Graham Brown**, and **Sherrington**. These observers studied the epidemic in Spain in 1885, especially with regard to the etiology of cholera and its relation to **Doctor**

Koch's comma bacillus. They state absolutely that there were cases of Asiatic cholera in which it was impossible to detect the comma bacillus. They say: 'In many cases of undoubted cholera Asiatica, where death occurred, before the reaction stage had set in, we were unable to detect comma bacilli in any of the films or cultures prepared from the intestinal contents taken from different parts of the alimentary canal.'

"In India it is well known that whole series of cases have been seen without the comma bacillus."

### DEDUCTIONS FROM OBSERVATIONS DURING THE LAST TEN YEARS.

"We have thus the facts that pure cultivations of the comma bacillus have been repeatedly taken by individuals without on one occasion producing cholera; that many experiments are here recorded, both in men and animals, in which every effort was made to obtain a positive result, and in not one case was anything like cholera produced; that we have witnessed many experiments made by others to show that cholera could be caused by the comma bacillus, and yet in not one of them was cholera manifested. On it being pointed out to the experimenters that the condition was not in the least like cholera, on more than one occasion the astonishing reply was given, 'It must be cholera for it was caused by the comma bacillus.' It is difficult to deal seriously with an argument like this. It is first assumed that the comma bacillus is the cause of cholera and then cholera is defined to be a condition produced by the bacillus. A position that only admits of an empty assertion of the point to be proved is of a character much more than dubious. We have, in addition to these, the fact that cholera can kill a strong man in a few hours with the most intense symptoms, but the most that has ever been effected by the comma bacillus is a mild diarrhea. Again, water like that at Hamburg and Szerb-Aradcz and Buda-Pesth can produce most virulent cholera, and yet contain no trace of the comma bacillus; but that, on the other hand, pure cultivations of the comma bacillus have been eaten in considerable quantities by numerous individuals without once causing the disease. It is not, we hope, being too exacting to expect that the cause of cholera should, sometimes, at any rate, produce its effect. But, even regarded as a mild aperient, the comma bacillus cannot be depended on.

"But in regard to the diagnosis of Asiatic cholera we think there can be but one opinion. Asiatic cholera is a disease with very marked characteristics; it has a wide range of lesion; and it is a disease with a high rate of mortality—a rate so high that no modern European epidemic disease can compare with it. We have seen that independent observers have been unable to detect the comma bacillus in many cases of it, and we have also seen the terrible consequences that have ensued from waiting for recognition of the comma bacillus before pronouncing the diagnosis of cholera. It is, therefore, clear that if a city or province should have a disease of the nature of Asiatic cholera, it is an imperative duty to declare the presence of cholera at once. But to have cholera, to conceal it, to send ships filled with this terrible scourge all over the world, as Hamburg did, simply because a bacillus which those fully in a position to judge do not consider an integral part of the disease has not been found, is an act that it would not be possible to censure in terms sufficiently strong."

## QUARANTINE.

"Quarantine may be conveniently defined as the interference with free human intercourse for the sake of preventing the introduction of communicable disease, whether it is effected by hindering persons from leaving an infected place, or by preventing them entering a district not infected. Viewed in this light it is one of the oldest of human institutions.

"The first thing that must strike anyone who considers the question of quarantine is, that the condition of various places, in regard to site, geographical position, and possibilities of quarantine, differ most widely. We have, for instance, a city like Calcutta, situated in the densely populated plain of Bengal, with free communications in all directions by road, by rail, and by boat. We have on the other hand, islands in midocean, like Mauritius, or Teneriffe, separated from other lands by distances that would take days of sailing to pass over, and where the arrival of a vessel is an event. To draw a sanitary cordon round Calcutta to prevent anyone leaving it would be practically impossible. To surround it, and Howrah, its suburb on the other side of the Hughli, would require an army; even in war it would not be possible to accomplish it. It is a well-known fact that, in spite of the most strenuous efforts of the Germans, many persons escaped both from Paris and Metz.

"But all places are not under the same conditions as an inland town. As we have said, there are islands in the ocean, and whole continents, completely isolated from the rest of the world. Is it, then, impossible to regulate the intercourse between them and an infected spot so as to reduce to a minimum the chance of introducing infectious disease? It is clear that it is quite possible. In the West Indies there are islands from which yellow fever is never absent. There are others where it is the rarest visitor. Are we then to make a hard and fast rule because we cannot isolate Calcutta completely from Benares, or Hamburg from Berlin, that such clean islands as Antigua and Barbadoes should receive without question all the diseases bred by the atrocious filth of Cuba and Hayti? It would not be possible to enforce such a rule, for the inhabitants of the properly and sanitarily administered islands would rise *en masse*. In the island of Saint Christopher it is, we believe, twenty-three years since an epidemic of yellow fever occurred there, so carefully is supervision exercised over incoming ships, and so well attended to are sanitary rules.

"It will no doubt be remarked that localities can be placed in three classes according to their position in regard to the supervision of which their intercourse is capable. There are towns in a continent having free communication in all directions. There are islands situated near the mainland and seaboard towns. Lastly, there are ocean-surrounded islands and continents completely isolated by oceans, as America and Australia.

"In the first group of towns in a continent, quarantine and sanitary cordons are an impossibility. They have failed over and over again. But it must be remarked that they fail, not because they stop human intercourse, but precisely because they do not. Nobody has any real difficulty in passing a sanitary cordon.

"In islands near continents, and in seaport towns, the conditions are somewhat different. Ships arriving can be carefully inspected, with all the persons on board. In these cases great judgment should be used not to interfere unnecessarily. But we think that, if there is any reason to believe that a communicable disease exists on board a ship, it is quite legitimate to isolate any suspected person, to keep the remainder under observance for a reasonable time, to thoroughly disinfect everything that could act as a carrier of infection, and to purify the ship thoroughly, especially as regards its drinking water and its bilge water. It is perfectly justifiable to detain a suspected ship till all danger from her is over. We belive that carefully considered rules of supervision like these are capable of doing great service in preventing the introduction of communicable disease, and we do not hesitate to say that we think it permissible to retain under observation the whole of the persons on board a vessel, if there is reason to believe that any of them are infected, till the risk rising from that infection is over."

### QUARANTINE IN AMERICA.

"In the third group, where a great extent of sea is interposed between the country to be protected and the source of infection, there is evidence, also, that carefully directed supervision, together with isolation if necessary, is perfectly capable of preventing a communicable disease from entering. Cholera, when introduced into America by ships in 1832, 1848, and 1854, spread with terrible fatality through the continent. But in 1865 the ship Atlantic, that had cholera on board, was strictly isolated, and no epidemic followed. But the next year the England, under similar circumstances was allowed to enter, and an epidemic resulted. In 1892 the ships Normannia and Moravia, and others, in spite of the assertion that they had no Asiatic cholera on board, but only the cholera nostras of Hamburg without the proper bacillus, were subjected to isolation, the American authorities, with sound judgment, deciding that cholera should be judged by its characteristics and effects, as is done in all other diseases. The result of this was that, though a large number of deaths occurred in the quarantine stations, the disease completely failed to obtain an entrance into the country.

"Cholera has also never been introduced into Australia and New Zealand through the care exercised, and what is of great interest also, hydrophobia is completely absent. Even animals capable of suffering from this disease are kept for a time under observation before they are permitted to be introduced. The results have been complete freedom from hydrophobia—a thorough proof of the efficacy of these measures.

"Thus each country differs in the degree of protection that supervision of intercourse can confer, and no rule of universal applicability can be formulated. Each State should, and no doubt will, enact those laws which are best suited to it; so that there is no difference in this respect between sanitary rules and any others. It is notorious that the two first communities to enforce quarantine on an outbreak of communicable disease occurring in the Mediterranean are the British dependencies of Gibraltar and Malta."

### REMARKS ON QUARANTINE IN CHOLERA AND YELLOW FEVER.

I have quoted from DOCTOR WALL's work so fully because it is the experience of a man who was for many years in intimate relation with cholera in its home, as a medical officer in the Indian army, and who supplemented the knowledge thus gained by a personal study of the recent outbreaks in Italy, Spain, Germany, and Hungary, both in the hospitals in those countries, and in the laboratories where scientific investigation into this disease was being carried on. His opinions are, therefore, of the greatest value, and they confirm the results we obtained from our investigation in India.

It is to be hoped that the wise precaution adopted for the prevention of cholera getting a foothold in this country will be enforced should another epidemic appear in Europe in the future. Quarantine and isolation are the only means by which it can be kept out of a country situated as this is. The enforcement of quarantine may seem hard to those who have to undergo it, but the few must suffer for the general good. DOCTOR KOCH himself was disinfected, to his great disgust, when passing from one country to another in the recent epidemic in Europe. I have been in quarantine many times for yellow fever, cholera, and small-pox. This was on board ship, and it was rather monotonous, but where the quarantine grounds are situated in places where there is good fishing as is often the case, I did not find it a great hardship. It would be, of course, much worse on shore. There are instances where quarantine, as it is carried out, is positive barbarity.

I once saw at Albany, on the west coast of Australia, a case of small-pox, which had been placed in a large coal barge and moored out in the bay half a mile from the shore, with only a canvass screen over the cot in which the patient lay, and this in the winter with heavy rain almost every day.

That quarantine may be evaded and that with impunity, I know, as I once came from Pernambuco to Lisbon with over four hundred passengers and yellow fever on board. We were twelve days making the passage, and had forty-two deaths. The quarantine was strictly enforced at Lisbon, and we anchored in the quarantine ground below Belem Castle in the river Tagus. The Lazaretto is situated on a hill on the south bank of the Tagus, and consists of a series of low buildings surrounded by a wall and the whole whitewashed. Here the Lisbon passengers were sent to undergo twenty-one days quarantine. The mails were landed at a barren spot on the bank of the river, where large fires had been lighted some time previously. The bags were opened and cuts were made through the letters with broad chisels, and they were then fumigated.

Among the passengers were a number of wealthy Portuguese, who did not relish the idea of spending twenty-one days in the Lazaretto in the burning sun with no home comforts, and they came on with us to Southampton. From there they took the train to Dover, crossed to France, and were in Lisbon eight days after they had left it in the steamer. No yellow fever broke out in Lisbon after their arrival.

## PREDISPOSING INFLUENCE.

Although we cannot speak positively as to the cause of cholera, there are certain things which seem to predispose people to take it, and the most important of these, I think, are diarrhea and fear. A large number of cases are preceded by a painless diarrhea, often slight, and this forms the danger, as it is frequently allowed to go on without treatment, until suddenly it develops into acute cholera. Every condition which is likely to produce diarrhea should be rigidly removed during the prevalence of a cholera epidemic, and especially aperient medicines should be avoided, as in many cases they seem to actually invite an attack of cholera.

There is no doubt also, that fear has a very strong predisposing influence, and especially in those cases where we see strong, healthy men cut down by the disease in a few hours. I saw this exemplified in a very bad cholera epidemic in Akyab, in Burmah; here the death-rate was every large, and the two European doctors belonging to the place both died of the disease. We lost about half of our crew, and as we had no doctor and no medicine, it was a good example of the survival of the fittest. I noted especially that those men died who feared the disease. They became moody and dispirited, and although showing no sign of the disease at night, were frequently found dead in their beds in the morning.

In another epidemic in Shanghai, China, when the mortality was the worst I have ever seen, we were under peculiarly bad conditions according to our present ideas. The river is a tidal one, and everything drains into it. The bodies of the Chinese of the poorer classes who died of cholera, were also thrown into the river, and I have counted as many as fifteen dead bodies floating around us at slack tide. The river was the only water we had to drink. We filtered it as best we could, but I imagine very inefficiently. I knew many strong, healthy men, captains and officers of vessels loading with tea, who were so impressed with the danger of the disease, that they became a positive nuisance, and in a short time every one of these men died of cholera, although there did not seem to be in many cases any premonitory symptoms; but when they got it they went off rapidly. In this way a number of vessels loaded with tea ready for sea were left with no captains or officers to take them away.

I have been in a number of bad epidemics of cholera and yellow fever in different parts of the world, and I attribute the immunity I have enjoyed to my love for fishing and shooting. I do not mean to say that fishing and shooting of themselves will prevent an attack of cholera, but I do say that men who give all their energies to their work of whatever kind it may be during working hours, and devote all of their own time that they can spare from their meals and sleep, to fishing or shooting, or any other outdoor recreation, are much less liable to become victims to either cholera or yellow fever, than men who, when their day's work is done, have nothing to exercise either their minds or their bodies. I feel certain that the man with a healthy hobby is the one that can best resist the attacks of any disease, and I also feel certain that the temperance man, with a whisky bottle in his private cupboard, will be one of the first victims, should the cholera visit us.

# CORRESPONDENCE.

## DRESDEN LETTER.

By COLLINS H. JOHNSTON, B. A., M. D., Grand Rapids, Michigan.

VISITING PHYSICIAN TO SAINT MARK'S HOSPITAL, GRAND RAPIDS, MICHIGAN; EXTERNE OF THE ROYAL FRAUENKLINIK, DRESDEN, GERMANY.

### THIRD PAPER.

### GYNECOLOGICAL MEASURES OF THE LANDAUS.

Among the most prominent gynecologists of Germany are the Landaus, of Berlin. Leopold, the elder, has a beautiful private hospital with forty-five beds, and there I have seen some of the best surgery it has been my pleasure to witness. The Landaus are splendid men personally, reminding one very much of Americans, and in the cordial reception they give a foreigner thirsting for knowledge present a pleasing contrast to some of the men one meets over here. In general they are very conservative men, and their views differ much from those of MARTIN and other prominent Germans. Some of their views, however, are at present considered more radical, yet their successful results seem to justify their positions, and their views of the treatment of pus tubes are bound to command the thoughtful consideration of the profession. Only to-day I heard LEOPOLD, of Dresden, who considers himself to be one of Germany's most conservative men, say that a woman without her tubes and ovaries would often be much better off without her uterus also.

The LANDAUS are, I believe, the only German surgeons of prominence who perform vaginal hysterectomy with forceps. This method of operating was introduced by PEAN, of Paris, a few years ago, but LANDAU has extended its use to the removal of uterine fibroids and pus tubes per vagina. He maintained that there is but little use in preserving a uterus after removal of its appendages, and I have seen several women, the removal of whose uteri was necessary to procure relief from symptoms for which the uterine appendages had previously been removed. LANDAU's immediate results from laparotomy for pus tubes were exceptionally good, having lost but five patients after two hundred such operations. But so large a per cent. of the women suffered afterward from leucorrhea and incurable hemorrhage depending upon diseased condition of the uterine cavity and walls, and from pain due to adhesions and exudates; and the uterus itself was so entirely useless after its appendages were gone, that LANDAU decided to remove it also. No matter how thoroughly a uterus may be curetted before a laparotomy for pus tubes, the infection, which is so often gonorrheal, cannot always be entirely removed; you cannot reach the interstitial part of the tubes, nor curette away all of the diseased follicles of the mucous membrane, or any of the diseased muscular tissue. Moreover, as abdominal hysterectomy in general is a much more difficult and dangerous operation than vaginal, and as he had often removed pus tubes successfully per vagina, when they occurred as a complication of carcinoma, without the prognosis seeming to be made worse thereby, he considered the vaginal operation to be the preferable one. He has now operated in this way thirty times without a death, and so favorable are the results as regards relief from symptoms, that he follows it in every case in which the patient's consent can be secured. He has also made ninety-seven vaginal hysterectomies for cancer, with seven deaths, and thirteen for fibroids, some of them reaching in length to the umbilicus, with one death.

## TECHNIQUE OF OPERATIONS.

These vaginal operations are made entirely with clamps. Their advantage over the ligature are the greater ease and rapidity with which the operation can be done and the greater security against hemorrhage. In fact, I think it would be impossible to use the ligature in many cases of pus tubes. The technique is similar to that used in hysterectomy for cancer, as the appendages are always removed in the latter operation. The patient is placed in the lithotomy position, and anterior, posterior, and lateral vaginal retractors introduced. The cervix is then seized with a strong pair of MIZEUX's forceps and drawn well down, while a circular incision is carried around the cervix through the mucous membrane, a little below its reflection upon the uterus. The tissues are then pushed up with the handle of a scalpel or the finger, the anterior and posterior peritoneal pouches are opened, and the fundus drawn out anteriorly with as much of the appendages as possible. Then the index finger is introduced into DOUGLAS's pouch behind the broad ligament, and three or four pairs of forceps are placed on each side as close to the pelvic wall as possible. When much trouble is experienced in placing the clamps, the uterus is split in two, thus affording easier access to the lateral pelvic walls. It is surprising to see how little bleeding accompanies the operation, and it is explained, I think, by the constant and strong traction upon the uterus, constricting the vessels running to it. When all hemorrhage is stopped, three strips of iodoform gauze are placed in the vagina, one above the forceps, one below, and one between them. The latter is placed between the wounded surfaces at the vaginal vault, but care is taken not to pass it into the abdominal cavity. It serves to keep the cavity open, thus providing for free drainage, and prevents prolapse of the intestines. The clamps and the outer pieces of gauze are usually removed in twenty-four to thirty-six hours; the middle strip is left in twenty-four hours longer. On the third day vaginal injections of sterilized water are ordered twice a day under slight pressure. When a patient has a tendency to hemorrhage; when a good sized artery has been cut; when the smaller arteries have shown a decided tendency to bleed; when the patient is quite young; or when the operation was unusually short, the forceps are left on thirty or thirty-six hours. But when the operation has been long and the vessels have had time to close themselves, they are removed earlier. In one case I saw them removed after four and one-half hours, and in another case, after an operation lasting over two hours, none at all were used, and no bleeding followed.

LANDAU believes that the nephritis of pregnancy is often caused by pressure of the uterus upon the ureters, causing a mechanical hydronephrosis, followed by inflammation. In the same way nephritis can be set up by fibroids or other abdominal tumors, and in such cases especially he does not consider the presence of albumen or casts a contraindication to operation. On the contrary, an operation is all the more necessary. Nor in such cases does he use other than his usual anesthetic, ether. In a case of large uterine fibroids in a woman thirty-five years of age, who was in pretty constant pain from the pressure of the tumor, and whose urine contained large quantities of albumen and a considerable number of casts, he opened the abdomen and passed a strong ligature on either side close to the pelvic wall, including the infundibulo-pelvic ligament and as much of the broad ligament as possible. Then the usual anterior and posterior peritoneal flaps were made, and the myomatous uterus cut off on a level with the internal os. The patient was then placed in the lithotomy position and the operation concluded in the usual way through the vagina. The abdominal incision was then closed.

The secret of LANDAU's success in his vaginal operations, I think, lies in the exceedingly great care he takes to stop all bleeding; to the fact that infection of the abdominal or pelvic cavities is in a great measure avoided; and to the excellent drainage he obtains through the vagina.

## A COMPLICATED. CASE.

Among the many operations I saw at LANDAU's clinic, among which were cases of extrauterine pregnancy, appendicitis, ovarian tumor with twisted pedicle, primary carcinoma of the fallopian tubes, et cetera, all of which ended in recovery, one of the most interesting was one for fecal fistula. The patient was about thirty years old, with pyosalpinx, intestinal and omental adhesions on the right side, pachysalpingitis with peritoneal cyst, and adhesions to the colons on the left side. The operation was a long and difficult one, lasting two hours, and necessitating the tying of considerable omentum and the repair of a rupture of the sigmoid flexure of the colon. As both ovaries and tubes were removed, the operation was completed by extirpating the uterus per vaginam. The abdominal cavity having been infected from the intestine and from rupture of the pus tube, it was drained with iodoform gauze. The patient did well, but a fecal fistula resulted. On the fifteenth day the patient was again anesthetized, the opening in the gut found after long and patient search, repaired with two layers of LEMBERT's sutures, and the abdominal and vaginal drainage continued. At the end of seven days the woman developed an empyema and the fistula reopened.

## A VALUABLE GYNECOLOGICAL PROCEDURE.

To LEOPOLD LANDAU belongs the credit of having introduced into practice, in 1885, one of the most useful and valuable gynecological procedures we have, namely, the placing of strips of iodoform gauze in the uterine cavity for purposes of dilatation and drainage. His experience with it and the curette since that time has been such as to lead him most emphatically to endorse the teachings of our American text-books, that dilatation and curetting of the uterine cavity is positively contraindicated when the uterus, if fixed, or disease of the tubes, peri- or parametrium, is present. The recent teachings of POLK and several New York men, with whom he is quite familiar, he believes to be positively dangerous, and he maintains that they have no pathological foundation. You cannot talk long with a German upon a medical or surgical topic without having him refer to pathology.

LANDAU says it is impossible to reach diseased tubes and ovaries by intrauterine treatment, and that all attempts to treat the diseased mucous membrane in the presence of extrauterine disease only disturbs the parts and increases the tendency to local inflammation. Moreover, packing a uterus with gauze excites contractions in its powerful muscles, which are continuous with the musculature of the tubes; and if the latter contain pus, which they so often do without the most skillful bimanual examination being able to detect it, it is liable to be expelled into the abdominal cavity. LANDAU believes that whatever benefit one hopes to obtain by POLK's treatment can be secured by other means that do not at the same time expose the patient to the possibility of being greatly injured thereby.

## GERMAN THERAPEUTICS.

I have not yet acquired much respect for German therapeutics. Some brilliant therapeutic measures have of course originated here, as, for instance, the cool bath treatment of typhoid fever. But as a rule, comparatively speaking, they are devoid of therapeutic resources. This is all the more strange in a nation which has discovered many of the most potent drugs in the pharmacopeia, as saccharine, cocaine, the salicylates, antipyrine, et cetera. I think it is largely due to the German temperament of idealism—a ceaseless striving after that which is ideally definite and true; and the practice of therapeutics is not and cannot be sufficiently exact to prove an attractive field for them. But that they are thorough pathologists no one can deny.

## THE ETIOLOGY OF TUBAL PREGNANCY.

The LANDAUS have a very complete pathological laboratory, and DOCTOR THEODORE has done a great deal of very good original work there. The etiology of tubal pregnancy is a very interesting and by no means settled question. It is supposed by some authorities to be due to a sharp bend in the tube, which prevents the passage of the ovum to the uterus; but such an obstruction would be equally impassable to the spermatozoa. We could, of course, explain pregnancy in such a case by supposing the impregnated ovum to have migrated from the opposite side through the peritoneal cavity. When we consider that the fallopian tubes run backward as well as outward when they leave the uterus, and that the ovarian ligaments with the ovaries wind backward still more than the tubes, we understand why we so often find the ovaries and tubes, especially when diseased, behind the uterus, quite close together; and external migration of an ovum from the tube or ovary of one side to that of the opposite side does not seem so impossible. DOCTOR LEOPOLD LANDAU has operated upon a case of tubal pregnancy in which no trace of an opening between the tubal sac and the uterus could be found, and its site was occupied by a thick pedicle containing no trace of tubal tissue, a condition clearly antedating the pregnancy. Moreover, the corpus luteum of pregnancy was found in the ovary of the opposite side. Another way of accounting for tubal pregnancy, which comprises the great majority of cases of extrauterine pregnancy, is to consider that the ovum is caught in a diverticulum in the wall of the tube and develops there. That this is possible is proved by two cases reported by DOCTOR THEODORE LANDAU four years ago, the first of the kind on record. The first case was that of a woman thirty-four years old, from whom a left-sided ovarian tumor had been removed. Nothing unusual could be seen about the tube macroscopically. But on microscopical examination a short diverticulum was found, continuous with the lumen of the tube, passing through its muscular coat, and lined with ciliated epithelium. The second case was that of a young woman twenty-six years old, who died from hemorrhage in the second month of an extrauterine pregnancy. On post-mortem examination DOCTOR LANDAU found a somewhat similar condition to that existing in the first case, and in addition a six weeks' ovum in the accessory tube, which had ruptured and given rise to the fatal hemorrhage.

DRESDEN, GERMANY, February 28, 1894.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, OCTOBER 30, 1893.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### PATHOLOGICAL SPECIMENS.

DOCTOR FLINTERMANN exhibited a specimen of carcinoma of the esophagus and gave the following history of the case: He had been called to see, four months previous, a man fifty years of age who had been complaining for a long time. There was then a well-marked cirrhosis of the liver, jaundice, general weakness and marked swelling just below the clavicle. The act of deglutition was attended with difficulty. The patient was seen a few weeks later when there was greater trouble than ever in swallowing. Upon passing a bougie a carcinoma of the esophagus was found. Primary carcinoma of the esophagus is a not infrequent disease. The adjacent lymphatic glands are usually affected. The favorite seat of the trouble is at the bifurcation of the trachea. Metastatic growths in the liver are often found. In this particular case the father and brother had died of cancer. A frequent cause of the trouble is the excessive use of alcohol.

Doctor Sampson: I have been very much interested in the account of the case just given, and it brings to my mind the history of a similar case occurring in a lady of advanced years. For some time previous to death there was difficulty in swallowing which kept on increasing until the patient finally died of inanition. The post-mortem revealed a carcinoma completely encircling the esophagus just above the stomach. There was no stoppage of the canal, but an interference with the muscular coat so that the food was not propelled down.

## DISCUSSION OF PAPERS.

Doctor Jennings read a paper on "Gonorrheal Rheumatism."

Doctor Robbins: I had hoped that we might do away with the term gonorrheal rheumatism for the more accurate one of gonorrheal arthritis. We find no concurrence among authors as to the real nature of rheumatism, some regarding it as due to lactic acid, some to a specific microbe, et cetera. It is yet a question if this affection which we are pleased to call gonorrheal arthritis is really due to the gonococcus. Thus far we have been unable to find the gonococcus in the effected joints, but later in the progress of the disease, there is found a diplococcus similar in many respects to the gonococcus. However, no cultures have yet been made which would produce a gonorrhea or a rheumatism. Our knowledge of the etiology of this complaint is still very incomplete. Gonorrheal arthritis is a comparatively rare disease, especially among females. In the treatment of some two hundred and seventy-five cases of gonorrhea of which I have had the control, there have occurred but four cases of joint trouble, and all of these have been among males. Two were light cases, simply a serous inflammation, one a sero-purulent inflammation terminating in a partial ankylosis of the affected joint. The trouble usually appears in the third or fourth week of the gonorrhea, especially when there is an extension of the infection to the posterior urethra. Forty per cent. of all cases of gonorrhea have consequent a posterior urethritis. When the joint becomes inflamed and there is ulceration of the posterior urethra, there should be treatment of the deep urethra. The tonic treatment recommended by the essayist would coincide with my views on the subject. When we wish to promote the asepsis of the urethra, internal medication, salol, is the most efficient drug at our command.

Doctor Tappey: It might be interesting to the members of the Society to know the history of a case which occurred in my practice. A young woman recently married was infected with gonorrhea by her husband. This was followed by a most troublesome and virulent inflammation of the elbow- and wrist-joints. This continued for several months, and was followed by impaired movement of the elbow and atrophy of the hand. The original inflammation seemed to be complicated by genuine rheumatism. The origin of the trouble was undoubtedly gonorrheal, but there has been since, off and on, more or less rheumatism of the parts.

**Doctor Noyes**: In my ophthalmological work I have seen cases of scleritis following urethritis where the case has been most obstinate, requiring considerable time to effect a cure.

**Doctor Miner**: In my experience the appearance of the arthritis has been coincident with the disappearance of the discharge.

**Doctor Sampson**: I am inclined to think that the cases of gonorrheal rheumatism occur in improperly treated cases of urethritis or where the treatment has been imperfectly carried out by the patient. I am very fond of the use of simple hot water injections in the treatment of posterior urethritis. I am very much opposed to the use of salicylates in this joint affection.

**Doctor J. Byron Newman**: We often find cases of arthritis following scarlet fever. I have never heard of a case of arthritis following gonorrheal conjunctivitis. In these cases of gonorrheal arthritis we always find a scrofulous or rheumatic diathesis. I always make use of the alkalies both internally and externally in the treatment of these cases. I have never had a case of posterior urethritis develop into a case of gonorrhea when I have had the direction of the treatment from the beginning.

**Doctor Winter** related the history of a case of multiple arthritis where a vaginitis appeared a few days after the commencement of the joint symptoms.

**Doctor Flintermann** called attention to the fact that in syphilis we have inflammatory troubles of the joints, also in a number of fevers. Why should we not also have inflammatory joint trouble caused by the gonococcus? The passage of a catheter will often bring about articular difficulty. Fatal cases of gonorrheal rheumatism are recorded where there have been hemorrhages under the skin and accompanying endocarditis. One of the most essential points in the treatment of gonorrhea is rest in bed with a fever diet. The value of this is well shown by the rapid recovery which soldiers make when put in the hospital.

P. M. Hickey, M. D., Secretary.

# EDITORIAL ARTICLES.

## THE PARASITIC ORIGIN OF CANCER.

The scientific world seems to be in considerable doubt as to the relation borne by certain protozoa to cancer. Whether the organisms which so many observers purport to have discovered in cancer, have an etiological relation to the disease-process, or are only coincident factors, seems as yet undetermined.

The matter of determining the etiological rôle played by the protozoa is encompassed with numerous difficulties. In a recent article upon the subject Doctor I. Adler, in answer to the question, Can we arrive at the diagnosis of protozoan parasite in cancer? says: "We are justified in making a diagnosis of protozoan parasite in cancer only when its morphological attributes and its reactions to stains are such as to preclude all possibility of being explained by any of the numerous kinds of cell metamorphosis or other irregularities of cell life, and when in addition thereto a well-marked and well-established developmental cycle can be demonstrated."

It is manifest that these things have not been accomplished. The physiological and pathological variations to which the cell is known to be subject are legion, and are probably far from being all recognized. No specific stain has been found for protozoa, and no method of pure culture has been originated. Strictly speaking the argument in favor of an etiological relation between protozoa and cancer are confined to those of analogy. PFEIFFER's observations on myxosporidia have indicated that tumorous growths may result from some form of psorospermosis; but his proofs are not convincing. ADAMKIEWICZ's assertion, that cancer cells are themselves the parasites, has not stood experimental test.

The facts of histology do not as yet warrant a belief in the parasitic origin of cancer. There is, however, a growing body of evidence in support of such an assumption.

## EDITORIAL BREVITIES.

### FINAL RESULTS OF THE HYDERABAD CHLOROFORM COMMISSION.

IN a letter addressed by the secretary of the Nizam of Hyderabad to those comprising the commission of enquiry into the action of chloroform, the following conclusions are enumerated as a result of the enquiry: The researches of the Hyderabad Commission confirmed Syme's principles. The commission proved that: (*a*) Chloroform and shock are incompatibles. It was found to be impossible to stop the action of the heart by any form of shock under chloroform. (*b*) In death by chloroform the respiration always stops before the heart, which beats effectively for a considerable time after the breathing has ceased. (*c*) The lowering of the blood-pressure which is produced by the narcotic action of chloroform is harmless, and cannot be due to weakening of the heart. (*d*) Chloroform anesthesia is free from risk. As long as the breathing is natural and regular, and the inhalation is not continued after anesthesia is complete, overdosing with chloroform is impossible. (*e*) The pulse is never appreciably affected by chloroform, except through interference with the breathing or by overdosing. The experiments of the Hyderabad Commission did not satisfy the profession. The Commission's evidence of the absence of direct heart failure under chloroform was said to be wholly negative, and further experiments were rightly demanded in order to show the cause or causes of the fall of the blood pressure. These experiments were undertaken on behalf of his Highness the Nizam's Government by two of the greatest living authorities on physiology and physiological therapeutics, DOCTOR GASKELL, in England, and DOCTOR H. A. HARE, in America. DOCTOR GASKELL was assisted by DOCTOR SHORE, and DOCTOR HARE by DOCTOR E. O. THORNTON. The experiments of DOCTORS HARE and THORNTON substantiated those of the Hyderabad Commission. They found that it is not possible "in lower animals (the dog) to cause cardiac death by the freest use of chloroform by inhalation, without first causing respiratory arrest." And their report concluded in the following terms: "We agree so heartily with LAWRIE's conclusions" (which are those of the Hyderabad Commission) "that we print them below." The value of DOCTOR HARE's report will be more thoroughly appreciated when it is remembered that it is directly opposed to the conclusions published, only four years ago, by himself and **Professor H. C. Wood**, of Philadelphia; and that it is also altogether opposed to the statement made by **Professor Wood**, at the Berlin International Medical Congress in August, 1890: "We definitely proved that in the dog chloroform has a distinct direct paralyzing influence on both respiration and circulation, and that in some cases the heart is arrested before respiration." The fallacies of **Professor Wood's** experimental and clinical data were exposed in *The Lancet* and in the Hyderabad Commission's Report on Chloroform, and it is satisfactory to note that the report of **Doctors Hare** and **Thornton** indicates that they have convinced themselves that the opinions of **Professor Wood** were founded on error.

## MICROBES IN THE ALIMENTARY TRACT.

Before the Biological Society of Paris, **Gilbert** and **Dominici** recorded observations regarding the number of microbes in the fecal matter of two adult men. In one they found 67,000 per milligram, in the other 80,000. This would give an average of twelve thousand million microbes, considering the normal amount of fecal matter to be 167 grammes. The same investigators attempted to compute the varying quantities of microbes in different parts of the alimentary tract. Their opinion regarding the microbicidal character of the gastric juice seemed to be at variance with the views generally held.

## COLLEGE ATHLETICS.

**President Eliot**, of Harvard University, has very wisely attempted to mitigate the evils of present day athletics. He advises among other things that there should be no freshman intercollegiate matches or races; that no student should be a member of a university team or crew in more than one sport within the same year; that no football should be played until such time as the game can be played without violence. In a word, the difference between training and straining should be recognized.

## A MEDICAL BUILDING.

It is proposed to erect an improved office building in the central part of New York city for physicians exclusively. No office will be rented any tenant whose standing is not satisfactory. It is to have every convenience and practical facility, such as telephones, a telegraph office, district messenger service, agency for trained nurses, mail chute, pneumatic tubes, et cetera. The facilities so difficult for specialists to obtain in flats and ordinary residences will be on hand in every office in the building.

## TRANSFUSION AND HEROISM.

The *New York Medical Journal* very properly condemns the sensational tendency, displayed by the lay press, in exalting into heroism the action of some individual who, having plenty of blood to spare, permits it to be transfused into the veins of some individual needing it, rather than in allowing it after being bled to be thrown away. The gift is one that costs the donor little or nothing, and calls for no such undesirable recompense as sensational notoriety.

## THE COMPULSORY NOTIFICATION OF TUBERCULOSIS.

PHILADELPHIA physicians seem to be aroused in offering some antagonism to the action of the Pennsylvania State Board of Health, which is considering the advisability of following the Michigan State Board of Health in compelling the notification of tuberculous diseases. The notification in Michigan does not appear to be causing any hardship, and all that comes out of it is the reception by the afflicted of some useful literature giving instructions in regard to their own cure, and the dangers in which they may ignorantly involve others. The objections raised in Philadelphia are similar to those at one time raised here. For instance, DOCTOR DA COSTA says: "Why fix the brand of leper on a poor unfortunate because he has consumption, when the medical officer can do all that is necessary? He can instruct how to ventilate and keep the house pure, and how to disinfect the sputa. What more could a Board of Health do? What can it do, except in instances of death, in which proper disinfection may not be carried out? When death has occurred, and when disinfection is not likely to be practiced, it would be proper for the Board of Health to interfere. Under other circumstances, why should we place a stigma on the consumptive, why have him pursued from house to house, why have him a marked man, why have the house a marked one? Why give it a bad name and injure the landlord because there has been a death from consumption in it?" The time will undoubtedly come when our Boards of Health will follow up each case of typhoid fever until the source of water-poisoning has been detected. It may even be that these bodies will possess authentic family records, which will guide those interested in the mysteries of family dyscrasiæ.

## MEDICAL NEWS.

### MICHIGAN STATE MEDICAL SOCIETY.

OWING to a change in date of the meeting of the American Medical Association in San Francisco, the twenty-ninth annual meeting will be held in Lansing May 3 and 4, 1894, instead of the first week in June, as heretofore announced.

### AMERICAN MEDICAL ASSOCIATION.

THE committee of arrangements has secured Odd Fellows' Hall building, corner of Market and Seventh streets, for the meeting, June 5, 1894. Assembly Hall, for the general meeting, has a capacity of 1,500; the twelve smaller halls, for section work, range in capacity from 500 downward, with committee rooms adjacent. The engagement carries three of these rooms on Monday for accommodation of associate organizations, as that of the editors, colleges, et cetera. The banquet room on the ground floor, 65x95 feet, will be devoted to exhibition purposes, for which it is admirably adapted, and has been secured for the entire week that exhibitors may have Monday in which to place their goods and Saturday in which to remove them. Nearly half of the space is already taken, and others who desire to make a display of their goods under the most auspicious circumstances ever presented on the Pacific coast, should lose no time in applying to the chairman for space. Headquarters for the association have been located at the Palace Hotel, corner Market and Montgomery streets, only four blocks from the place of meeting. Here we have Marble Hall, 30x40 feet, as a registration room, where work will begin on Monday, and Parlor A, for committee work. The following hotels, centrally situated and convenient to the place of meeting, have quoted special rates for members and their families, which will apply during the entire stay of the guests, who should, upon registering, signify that they are in attendance upon the meeting of the association. The rates quoted are for single persons, the variation depending upon the size, situation, and appurtenances of the rooms, as single, en suite, with private bath, et cetera. Special arrangements will be made for families or parties on timely notice. Some of the hotels entertain upon the American plan only, some upon the European plan only, and some upon either plan to suit guests: Palace Hotel (headquarters), American plan (rooms and board), $3.50 to $5.50 per day; European plan (rooms only), $1.50 to $3.50 per day. Baldwin Hotel, American plan, $3.50 to $5.00 per day; European plan, $1.00 to $3.00 per day. California Hotel, American plan, $3.50 and up per day; European plan, $1.50 and up per day. Lick House, American plan, $2.50 and up per day; European plan, $1.00 and up per day. Occidental Hotel, American plan (only), $2.50 and up per day. Hotel Pleasanton, American plan (only), $2.50 to $5.00 per day. Russ House, American plan, $2.00 to $3.50 per day; European plan, $.50 to $2.00 per day. Grand Hotel, connected with the Palace by a glass enclosed bridge across New Montgomery street, European plan (only), $1.00 to $2.00 per day. In addition there are many other hotels, boarding houses, lodging houses, and restaurants contiguous to the place of meeting, where one can be made happy and comfortable at less cost. Post-Office, Section K, is located in the Palace Hotel on the office floor, adjacent to the registration room, where members can receive all mail matter by having it so addressed. More anon. R. H. Plummer, M. D., Chairman.

## REPORT OF MERCY HOSPITAL, BIG RAPIDS, FOR THE YEAR 1893.

THERE were 363 patients treated in the hospital during the year, exclusive of the twenty-five patients in the institution at the beginning of the year. There were forty-one patients in the hospital at the close of the year. Total number treated since the opening of the institution, 8,554. Of the 363 patients fifteen died from the following diseases or injuries: cancer of the stomach, 1; sarcoma of the leg, 1; septicemia, 1; pneumonia, 2; consumption, 3; Bright's disease, 1; necrosis of hip, 1; typhoid fever, 2; crushed leg, railroad accident, 2; tumor of the bladder, 1. The cases are classified as follows: *Diseases*—bronchitis, 11; Bright's disease, 6; colds, 43; consumption, 6; catarrh, 2; dyspepsia, 3; diarrhea, 2; dysentery, 6; eye disease, 6; epilepsy, 1; fever, intermittent, 9; fever, typhoid, 26; heart disease, 2; hysteria, 1; lumbago, 7; the grippe, 5; neuralgia, 11; paralysis, 1; pneumonia, 6; rheumatism, 21; skin disease, 11; sciatica, 3; tonsilitis, 7; epistaxis, 1; cystitis, 3; erysipelas, 3; delirium tremens, 2; mumps, 2; peritonitis, 1; rural colic, 1; measles, 1. *Injuries without fracture*—head and face, 4; back, 2; chest and abdomen, 5; upper extremities, 13; lower extremities, 33. *Fractures and dislocations*—ribs, 3; spine, 2; leg, 3; thigh, 1; skull, 1; superior maxilla, 1; inferior maxilla, 1; nose, 1; metacarpal, 1; dislocated shoulder, 1. *Diseases of women*—pyosalpinx, 1; endometritis, 9; lacerated cervix, 4; cancer of heart, 1; tumor of cervix, 1; salpingitis, 2; fibroid tumor of heart, 1; amenorrhea, 5; dysmenorrhea, 8. *Miscellaneous*—necrosis, 8; hemorrhoids, 4; abcess, 12; stricture, 1; goitre, 1; prostatic calculus, 1; septicemia, 1;

ulcers (varicose), 4; hydrocele, 1; tumor of bladder, 1; deformed toe (amputation of), 1; hemorrhage, 1; sarcoma of leg, 2; badly deformed nose (operation for), 1; tumors, 2; epithelioma of hand, 1; epithelioma of hip, 1; empyema, 1; cancer of stomach, 1; imperforate anus, 1. There were ninety surgical operations performed in the hospital during the year, considering as operations only such proceedings as involved division of the continuity of the skin or mucous surfaces. The results of treatment are shown in the following tabulation:

| | Recovered. | Improved. | Unimproved. | Died. | Still in House. |
|---|---|---|---|---|---|
| Diseases | 168 | 8 | 5 | 8 | 25 |
| Injuries | 48 | | | 2 | 7 |
| Fractures | 10 | | 1 | | 4 |
| Diseases of Women | 24 | 5 | 1 | | 2 |
| Miscellaneous | 34 | 2 | 1 | 5 | 3 |
| Total | 248 | 15 | 8 | 15 | 41 |

## THE LATE DOCTOR KINNE.

Amasa Farrington Kinne, M. D., who died at Ypsilanti on February 14, was the oldest practicing physician in that city, having located there in 1850. He was born at Waterford, Vermont, April 13, 1813, and received literary training at Dartmouth College, graduating with an A. B. degree in 1837. After teaching school three years in his native state, he entered upon the study of medicine at the institution mentioned above, received the degree of M. D. in 1841, and began the practice of his profession in Jeffrey, New Hampshire, where he remained until 1850, when he emigrated to Ypsilanti, Michigan. Doctor Kinne was an active and influential member of the medical profession, having been affiliated with county, state, and national medical societies for many years, and in 1881 he was honored by election to the vice-presidency of the Michigan State Medical Society. He was the author of numerous valuable papers contributed to medical publications and medical societies, and in one instance, involving competition, procured a prize of three hundred dollars for the best medical treatise on the subject of temperance. The doctor was twice married, in 1840 to Miss Susan O. Smith, of Hanover, New Hampshire, who died in 1859, of whose three children one survives; in 1862 to Miss Jennie S. Bristol, of Ypsilanti, who, with three children, two daughters and one son, survive to mourn the loss of a devoted husband and father. As a citizen, Doctor Kinne enjoyed the confidence and esteem of all who knew him. He served one term as mayor of Ypsilanti, and three consecutive terms as member of the board of education. As a physician, close habits of study, thorough investigation of cases, impatience with superficiality, utter contempt for anything savoring of quackery, and strict adherence to professional etiquette were characteristics that marked his career.

## MINOR INTELLIGENCE.

The physicians of the United States now number 118,453; New York leads with 11,171; Pennsylvania has 9,310, and Illinois ranks third with 8,002.

The World's Fair is said by alienists to have originated some new psychoses, mostly depending upon exhaustion incurred in seeing the attractions of the fair.

THE new vice-president of Brazil is a doctor.

DOCTOR W. B. Fox, of Bancroft, Michigan is dead.

A HYGIENIC exposition is to be held in Rome in May.

MIKULICZ, of Breslau, is being considered a possible successor to the late Doctor Billroth.

MRS. MARTHA ABBEY has bequeathed $55,000 to the Presbyterian Hospital of Philadelphia.

OF fifteen physicians examined by the Maryland State Board, Ida Pollock stood the highest.

THE ninth Exposition of Hygienic and Food Products will be held in Rome, Italy, in May, 1894.

QUINTRIPLETS.—Mrs. Rosenberger, of Kittaning, Pennsylvania, has given birth to five children.

CROYDON is the healthiest town in England, and has a mortality of only 11.2 per 1,000 inhabitants.

THE American Surgical Association will meet in Washington, District of Columbia, May 29–June 1.

THE Royal Academy of Medicine, of Naples, has admitted Doctor J. Mount Bleyer, of New York, to membership.

SMALL-POX is prevalent in Chicago, and Michigan health-officers are on the alert to prevent its invasion of their territories.

THE Medical Society of the State of Pennsylvania will convene in Philadelphia on May 15, and continue its sessions to the 18th.

CHICAGO had a record of one hundred and eighty-eight cases of small-pox during January. There were twenty-nine deaths from the disease, seven of which died outside the small-pox hospital.

THE thirteenth session of the Congress for International Medicine will convene in Munich, in 1895. This postponement has been occasioned by the Rome meeting of the International Medical Congress.

PROFESSOR HIRSCH, of the University of Berlin, died recently, aged eighty-three. He was a distinguished physician and pathologist, the author of several valuable medical works, and an investigator of note.

THE CENTRAL UNIVERSITY OF KENTUCKY.—On January 9 a new building for the Hospital College of Medicine and the Louisville College of Dentistry, which are departments of the university, was dedicated in Louisville.

THE COLORADO STATE MEDICAL SOCIETY.—Members of the American Medical Association returning from California, are invited to stop in Denver on returning from the coast and attend the meeting of the society on June 19, 20, and 21.

EASTERN MICHIGAN ASYLUM.—The graduating exercises of the training school for nurses took place February 28. An address was delivered by Doctor E. P. Christian, of Wyandotte, which was in the nature of an historical sketch of the treatment of the insane. Twenty-five candidates received diplomas.

SMALL-POX AND PIGEONS.—Doctor Hoebel, of the French army, has been sending vaccine from place to place by carrier pigeons.

THE College of Physicians and Surgeons, of Philadelphia, has divided itself into sections for the special consideration of different branches of medical practice.

.THE Nizam, of Hyderabad, has ordered a piece of silver plate to be sent to each of the gentlemen comprising the commission to enquire into the action of chloroform.

THE Hospital Saturday and Sunday collections in New York amounted last year to $58,000. It is hoped this year to bring them up to $70,000. Thirty hospitals participated.

THE twenty-seventh annual meeting of the Mississippi State Medical Association will be held at Jackson, commencing on Wednesday, April 4, and closing Friday, the 6th, at 2 P. M.

CARICA PAPAYA.—Doctor Hirchfield, of Brisbane, finds no value to papain, the digestive ferment in the juice of the pawpaw apple, in the.cure of carcinoma. It has, however, marked analgesic and antiseptic properties, an effect probably of its digestive action on bacteria.

DOCTOR WILLIAM LEISHMAN, formerly professor of midwifery in the University of Edinburgh, died on the 18th of February, aged sixty years. He was an author of great repute, his "System of Midwifery" having passed through four English and three American editions.

THE second sanitary convention of the State of California will be held at San José, on April 16, under the auspices of the State Board of Health. The date is the day preceding the meeting of the California State Medical Society, which will be held at the same place.

IMPROPER TREATMENT OF THE INSANE.—Complaint has been made by the superintendent of the Kankakee asylum that insane patients are badly treated at the Chicago detention hospital. Female patients, it is alleged, have been compelled to be disrobed by male attendants.

THE American Association for the spread of knowledge upon the extent and existing methods of vivisection, is a society that makes a temperate appeal to the profession, to prevent needless and unnecessary suffering to animals. The secretary's address is 58 West Fifty-seventh street, New York.

A BILL has been introduced into the legislature of Iowa which provides that every patent medicine offered for sale in that state shall have a statement of the ingredients of the preparation printed on the wrapper. Failure to comply with this request is punishable by a maximum fine of $100 or six months in the penitentiary.

HARVARD MEDICAL SCHOOL is enriched $50,000 by the will of the late Reverend W. C. Mosely, of Newberryport, Massachusetts. The money is given to endow a professorship in the medical school. The following institutions received bequests from the same source: Massachusetts General Hospital, $20,000; Boston Lying-in Hospital, $10,000; Perkins Institute for the Blind, $10,000; Anna Jacques Hospital, $10,000.

An Arkansas jury recently gave a verdict for $20,000 against the Little Rock and Memphis railroad company for a death attributable to negligence of the management.

The Michigan Surgical and Pathological Society.—At the annual meeting held March 5, Doctor Edward W. Jenks, was elected president; Doctor George A. Kirker, vice-president. Doctor Parker entertained the members at a banquet on the termination of the business proceedings.

Medical Fortunes.—Doctor Mead left $350,000. The personality of Sir Benjamin Brodie was under $110,000. The will of Sir William Gull, was sworn under $1,720,000, one of the largest amounts left by a member of the medical profession. This, however, was exceeded by Doctor Blundell who left $1,750,000. The late Sir Andrew Clark left $1,020,000.

Conversation Under Difficulties.—At a meeting of the Hospital Graduates' Club in New York, two patients were waiting in an adjoining room who were to be exhibited to the members. One had suffered total excision of the tongue for cancer, the other had had his larynx removed for the same disease. On summoning them to the room, they were found engaged in animated conversation with each other.

Liability of the Husband for Medical Attendance upon the Wife.—President Judge Hanna, in delivering the opinion of the Orphans' Court of Philadelphia, in the case of Waesch's estate, says: The liability of the husband for medical attendance upon his wife, even although she has a separate estate, is too well settled to admit of argument. He is primarily liable, and her estate is liable only in case he be insolvent. If any balance then remains for distribution, the expenses he should have paid will be deducted from his distributive share.

The fourth annual meeting of the Association of Military Surgeons of the United States, will be held in Washington, District of Columbia, May 1, 2 and 3, 1894. This national organization is composed of medical officers of the United States army, United States navy, national guard of the United States, and the hospital marine service—in whose service are many of the most celebrated and distinguished surgeons of our country. A brilliant and able literary programme will be presented. The afternoon of one day will be set apart for an object lesson from the "manual of drill," by the hospital corps. The evenings will be given up to social entertainments. There will be about five hundred delegates in attendance.

Red Light on Small-pox.—It is announced that one of the small-pox pavilions at the Riverside Hospital on North Brother Island is to be fitted up with red glass windows, and with red glass globes for the lights used at night, in accordance with the alleged discovery that the skin of small-pox patients is extremely sensitive to the violet colored rays of light, and that it is these which give rise to the pitting. The experiments which it is claimed demonstrated this fact were made by Doctors Lindholm and Finsen, in the City Hospital, at Bergen, Norway. New York will therefore be the first city in this country to try the efficacy of the red light, which is the same as that used by photographers in developing sensitive plates.

THE Cincinnati Academy of Medicine recently elected the following officers: President, Doctor E. G. Zinke; vice-presidents, Doctors Joseph Eichberg and O. D. Norton; secretary, Doctor David De Beck; treasurer, George E. Jones; corresponding secretary, Doctor Louise Southgate; librarian, Doctor Bertha L. Glaser.

# RECENT PUBLICATIONS.

## REVIEWS.

### A PRIMER OF PSYCHOLOGY AND MENTAL DISEASE.*

To render a scientific subject intelligible to those whose thought cannot use its symbols, or are unfamiliar with the terminology of the science, is always a difficult task, and for its successful performance requires that accuracy of thought be combined with lucidity of expression. It sometimes happens that this gift is possessed by the exponent of the most abstruse propositions of science. Faraday's celebrated "lectures on a candle" furnish an excellent example of a great scientific luminary writing of science in so plain and lucid a manner as to be understood by children.

The little book before us is a very successful attempt to bring the abstruse subjects of psychology and mental pathology within range of ordinary understanding. The scheme of the work is admirable. The fundamentals of normal psychology are first considered and definitions of the ordinary data of the science given. After each definition a brief explanatory account follows. In this way the student is familiarized with the essential nature of sensation, perception, memory, ideation, reasoning, judgment, volition, and emotion. Ingenious engravings also illustrate psychical processes. The first part of the book is comprised in the elucidation of the fundamental principles of psychology and the physiology of cognition. The second part deals with the pathological deviations from the normal standards. Insanity is defined in the same terse spirit that characterizes the definitions in mental physiology, as "a prolonged departure from the individual's normal standard of thinking, feeling and acting." Equally intelligible to the ordinarily-minded individual are such definitions as—"Recurrent mania is a disease characterized by periods of excitement, periods of depression, and at times periods of composure and complete lucidity." Hysteromania, "a form of insanity consequent upon unchecked impulses arising from an hysterical mental organization." Paranoia, "a form of disease occuring in one of congenitally defective nervous organization, and marked by certain well-defined symptoms, which seem to be due to defects of development and frequently appear as an exaggeration of the natural characteristics." These definitions, followed as they always are by a brief but lucid explanation of the disease, will readily familiarize the reader with the characteristic points of each malady.

The concluding part deals with the management of the insane and indicates the approved measures to be applied in the various conditions always present in asylum life.

Doctor Burr is to be congratulated upon giving to students of mental disease a useful hand-book. The scope of its usefulness will not be confined to the training-school students, to whom it is dedicated, but may well include the many members of the profession, who from lack of opportunity or deficient interest may realize themselves inadequately informed upon the important phenomena of mental disease.

We augur a future for this little book which will be gratifying to its author.

* By C. B. Burr, M. D., Medical Superintendent of the Eastern Michigan Asylum. Price, $1.00. Cloth. George S. Davis, Detroit.

## SUICIDE AND INSANITY.*

THE prevalence of suicide in some of the larger cities of Europe has brought the subject of self-destruction somewhat prominently before the public. To trace the cause of such outbreaks is the work of the sociologist and physiologist. The author of the book before us not content to accept the explanation generally accounted adequate, that this epidemic of suicide was due to the extreme heat of the season, has endeavored to trace the impulse to its physiological source, and to show that it is coëxistent with certain abnormal conditions met with in all communities.

The object of the present volume is a consideration of suicide as it prevails among western peoples. This is prefaced by an account of self-destruction as it occurred in past times among the natives of the East. The subject in the western world naturally divides itself into a consideration of rational and irrational suicide. The individual who is impelled to self-destruction by an innate craving or instinct is naturally to be considered in a different category from him, who, called upon to decide between death and a continuance of life, chooses the former from intellectual motives. To regard all suicides as infringing the first law of nature, self-preservation, does much, however, toward classifying all self-destructionists as pathological.

Doctor Strachan's admirable review of the subject embraces a consideration of numerous phases of the question. These include chapters upon suicide in relation to the various insanities, to the consideration of race, climate, season, influence of religion, sex and age. The question is also touched upon in ethical aspects.

The book is a very interesting one and will be found suggestive and entertaining to the general reader as well as to the physician or sociologist.

* A Physiological and Sociological Study. By S. A. K. Strachan, M. D., Barrister-at-Law; author of "Marriage and Disease," et cetera. Swan, Sonnenschem & Company, Paternoster Square, London.

## MODERN CLIMATIC TREATMENT OF INVALIDS WITH CONSUMPTION IN SOUTHERN CALIFORNIA.*

THE popularity of California as a health resort has not been curtailed by the rivalry offered by some of the southern resorts. It is doubtful if any locality can offer greater inducements than the genial and balmy shores of California, to those who may need climatic treatment.

Doctor Remondino's book is in the nature of a descriptive guide-book, and will be a useful one for those to consult who may be in search of a suitable climate for those affected with pulmonary troubles.

*By P. C. Remondino, M. D. The Physician's Leisure Library. George S. Davis, Detroit.

# MEDICAL PROGRESS.

## GYNECOLOGY.

### THE GREAT MEDICAL ERROR OF THE DAY.

In the treatment of the diseases of women at the present time there seems to me to be a tendency to lay too much stress upon lesions of the reproductive organs. Too little heed is, therefore, given to the nerve-element of woman's diseases, and, as a natural sequence, the surgical feelers and antennæ of the medical profession, always too keenly sensitive, vibrate vehemently at the approach of an ailing woman. This trend of the profession, to appeal to the knife as the great panacea for woman's diseases, is seen everywhere. It prevails alike in city, town, village, and hamlet.

It comes, not so much from the glamour surrounding surgery, nor from the greed of gold, but from errors of judgment and from mistaken diagnosis. These arise from the fact that woman, through her sensitive and emotional organization, is a bundle of contradictions. More pitiful than man, and more long-suffering, her anger is more cruel and her jealousy more relentless. Feebler than man, an appeal to her affection will make her surpass him in sheer muscular endurance. Who can nurse her kin so untiringly, and with so little rest, as even a frail woman can? What father can equal a mother in fondling and soothing a sick and fretful child through the weary night-watches? What man can undergo the sheer fatigue, the strain and stress that a woman will for those she loves? Even in her pleasures, her physical amusements, she will, through keen enjoyment, often outtire the strongest man. In one word, she is a creature of impulse and of emotion. But all nerve-strains, whether arising from the emotions, from the affections, or from the passions, have their reactions, and very strange and very misleading reflexes come from the loss of brain-control over insubordinate lower nerve-centers. For what is hysteria but nerve-misrule and the panic of the brain at incompetent control. The secret and sanctity of woman's inner life lies in her affections, and what disturbs them disturbs the nerves, and through them their environment of flesh and blood. These unruly nerve-lights flashing and fading at their own will, and without control, in the different organs of the body, the most careless observer may sometimes plainly see, for the clue is then as secure as the steps of a geometrical problem. But then again the symptoms are more frequently obscure. Often they are as misleading as the lapwing's flight. To construe such symptoms, to unfold their sense, and to paraphrase them, so as to gain a true conception of their character, often demands a deep acquaintance with human life and a keen insight into the most secret springs of its action.

Again, what is very perplexing, uterine symptoms are by no means always present in cases of uterine disease; and, what is still more bewildering, when so-called uterine symptoms are then present, they need not necessarily come from the uterine disease. The nerves are mighty mimes, the greatest of mimics, and they cheat us by their realistic personations of organic disease, and especially by their life-like imitations of uterine disease. Hence it is that even seemingly urgent uterine symptoms may be merely nerve-counterfeits of uterine disease. In fact, the time has come when we must give up the belief, which with many amounts to a creed, that woman is woman because she has a womb, and that the womb is at the bottom of nearly every female ailment.

Nerve-strain, or nerve-exhaustion, comes largely from the frets, the griefs, the jealousies, the worries, the bustles, the carks and cares of life. Yet, strangely enough, the most common symptoms of this form of nerve-disorder in women are the very ones which lay tradition and dogmatic empiricism attribute to ailments of the womb. They are, in the usual order of their frequency, *great weariness*, and more or less of *nervousness*, and of *wakefulness;* inability to walk any distance, and a bearing-down feeling; then headache, napeache, and backache. Next come scant, or painful, or delayed, or suppressed menstruation; cold feet, and an irritable bladder; general spinal and pelvic soreness, and *pain in one ovary*, usually the left, or in both ovaries. The sense of exhaustion is a remarkable one; the woman is always tired; she spends the day tired, she goes to bed tired, and she wakes up tired; often, indeed, more tired than when she fell asleep. She sighs a great deal, she has low spirits, and she often fancies that she will lose her mind. Her arms and legs become numb so frequently that she fears palsy or paralysis. Nor does the skin escape the general sympathy. It becomes dry, harsh and scurfy, and pigmentary deposits appear under the eyes, around the nipples and on the chin and forehead. Blonds are likely to get a mottled complexion, and brunets to be disfigured by brown patches, or by a general bronzing. Sometimes the whole complexion changes to a darker hue, and an abnormal and a disfiguring growth of hair appears on the face. There are many other symptoms of nerve-strain, but since they are not so distinctly uterine in expression, and, therefore, not so misleading, I shall not enumerate them.

Now, let a nervous woman, with some of the foregoing symptoms, recount them to a female friend, and she will be told she has "womb-disease." Let her consult a physician, and he, especially if she has backache, bearing-down feelings, an irritable bladder and pain in the ovaries, will assert the same thing and will diligently hunt for some uterine lesion. If one be found, no matter how trifling, he will attach to it undue importance, and treat it heroically as the erring organ. If no visible or tangible disease of the sexual organs be discoverable, he will lay the blame on the invisible endometrium, or on the unseeable ovaries, and continue the local treatment. In any event, whatever the inlook or the outlook, a local treatment, more or less severe, is bound to be the issue.

Yet, these very exacting symptoms may be due wholly to nerve-strain, or (what is synonymous) to loss of brain-control over the lower nerve-centers, and not to direct or reflex action from some supposed uterine disorder. Neither, for the matter of that, may it come from some real, tangible and visible uterine lesion which positively exists. Thus it happens that a harmless anteflexion, a trifling leuchorrhea, a slight displacement of the womb, a small tear of the cervix, an insignificant rent of the perineum, or what is almost always present, an ovarian ache, each plays the part of the will-o'-the-wisp to allure the physician from the bottom factor. To these paltry lesions—because they are visible, palpable and ponderable, and because he has, by education and by tradition, a uterine bias—he attributes all his patient's troubles; whereas a greater and subtler force, the invisible, the impalpable and the imponderable nervous system, may be the sole delinquent. The sufferer may be a jilted maiden, a bereaved mother, a grieving widow, or a neglected wife, and all her uterine symptoms—yes, every one of them—may be the outcome of her sorrows and not the outcome of her local lesions. She is suffering from a sore brain and not from a sore womb.

Fortunately, for my own reputation, and for that of my medical brothers who have thus erred, this grave error of diagnosis is not without excuse. For, as has been shown, the symptoms of nerve-strain—the reflexes of grief, of love, of neglect, of remorse, of jealousy and of unrest—so closely simulate those of even coarse uterine lesions, that the nerve-mimicrics very readily may be mistaken for the symptoms of actual organic disease. Nor, indeed, are they always distinguishable, the one from the other, for the marvelous kinship between mind and matter is a tangled skein unravelled yet by dead-house or laboratory.

To illustrate: Some years ago a healthy lady, aged twenty-three, was engaged to a gentleman whom she tenderly loved. The wedding day was named, the clergyman was notified and the invitations were sent out. Three days before the one fixed upon for the marriage there came a letter from the man breaking off the engagement. The blow to her love and to her pride was, of course, great. She secluded herself in her room, and in a few days took to her bed, with many symptoms of nerve-prostration, of which dysuria and an irritable bladder were the most prominent. For these vesical symptoms she was treated by the family physician with external and internal electricity, and with repeated flushings out of the bladder. Getting no better, but steadily worse, the next year she fell into the hands of a specialist, who diagnosticated anteflexion of the womb, cervical erosion and fissure at the neck of the bladder. He dilated the urethra, washed out the bladder and treated the womb *secundum artem.* Still remaining an invalid, she consulted a third physician six months later. He also dilated the urethra, examined the bladder with the endoscope, washed it out repeatedly, applied electricity to it by an internal electrode and gave cold douches. No improvement following this treatment, she called in a fourth physician. He kept her several weeks under his care, dilated her urethra and treated her mainly with electricity, if I remember correctly, though of this I am not absolutely sure. At any rate, she was not made a whit better, and a fifth physician was summoned. He, without success, treated her for anteversion of the womb and rectal ulcer. She now saw her sixth physician. By this time her urethra had been dilated so frequently that in the examination his finger entered the meatus urinarius, and not at first recognizing his mistake, he remarked upon the extreme narrowness of the vagina. He recommended the formation of a button-hole fistula in the urethra, but this advice was rejected. Four years after the beginning of her disorder she returned to the second physician whom she had previously consulted. After treating her heroically for some time without the slightest benefit, he proposed the excision of the bladder. This operation was refused and she, one year later, drifted back to her sixth physician. He first made a botton-hole fistula in the urethra. This failing to do any good, an artificial vesico-vaginal fistula was next tried. No benefit accruing from this operation, her ovaries, as the last resort, were removed, but peritonitis set in and she died. Now, what is the true interpretation of this sad case? The terrible shock to her pride and to her affections shattered her nervous system, and she was suffering more from the reflexes of a sore brain than from a sore bladder or from sore ovaries.

One more example for illustrating the influence of the mind over the body: A lady, after receiving the sudden news of her sister's death, began at once to throw up her food. Despite all remedies prescribed by the family physician, the vomiting persisted so stubbornly that she lost flesh, became weak, and menstrual disturbance set in. A consultant, recognizing the neurotic character of the disease, wished to treat it accordingly. Yet so impressed was she and her relatives by many so-called uterine symptoms, which they attributed to some disease of her reproductive organs, that they laughed at his diagnosis and dismissed him. Two specialists, therefore, were summoned separately and each one independently of the other attributed the vomiting and her other symptoms to a tear of the neck of the womb, and advised an immediate operation. For this purpose she went to the private hospital of one of these gentlemen. Directly after her admission she was seized with such violent and uncontrollable vomiting that in a few days her life was in danger. First one eminent physician and then another was called in by the specialist, and the three were in constant attendance until, after a desperate illness, she became well enough only to be carried home. No operation whatever had been performed upon her cervix, for she had been too dangerously ill, and was still too ill. She was now placed in the hands of her first consultant, who treated her nerves and her nerves only. Under this treatment she became well, wholly well, and has continued well ever since, although her cervical tear still exists. In one word, it was the old, old story of wounded nerves counterfeiting a wounded womb.

Strange as it may seem, the coccygeal joint is very liable to play the barometer to any kind of mental worry. The serious surgical blunder is, therefore, not infrequently made of extirpating for sheer hysterical coccygodynia this important bone, important from its muscular origins and insertions. I have known coccygodynia to attack a lady after the death of her mother. Every kind of treatment failed: but it was finally abruptly cured by her great resentment at the second marriage of her father.

The late Doctor Fordyce Barker told me of an analogous case caused by the sudden death of the gentleman to whom the lady was engaged. After consulting without benefit the best specialists at home and abroad, she led a sofa-ridden life, and did not stir from her house. She obstinately objected to surgical intervention, and the case seemed a hopeless one; but she was permanently cured by a lawsuit following a bitter family quarrel, in which she took a very active part. I have not on my conscience the extirpation of a nervous coccyx, but this exemption is merely a piece of good luck, and not of good sense, as the following history will show: A highly intellectual lady, among many nervous symptoms suffered much from her coccyx. This she attributed to injuries sustained while she was riding a bucking horse. She was the patient of an eminent neurologist, who had cured her of all her symptoms but the coccygeal one. I was called in by him, and after doing my best by topical applications, and by replacing a retroverted womb and dislocated ovaries, made up my mind that the trouble was a traumatic one needing surgical relief. The day and the hour of the operation accordingly were fixed upon; but before they were reached the pain mysteriously left the coccyx, never to return. A dominant mental impression—the fear of the operation—exorcised the coccygeal demon.

Once I was asked by a medical friend to see an exceedingly bad and acute case of pruritus vulvæ; the very worst that ever came under my observation. The lady was tossing about in her bed in a state bordering on frenzy from the intense itching, which could be allayed only by cold starch poultices applied every few minutes. Very naturally attributing it to uterine disease, my friend had discovered a small but angry-looking tear in the cervix, exuding a viscous discharge, and I was called into the case to decide the question of an operation. I, too, was at first led astray; but the suddenness of the seizure, its vehemence, and the lack of consistency in the behavior of the symptoms, put me on my guard, and we soon found out the cause to be an attack of jealousy. This was a stubborn case to manage, but she ultimately recovered under isolation, massage and heroic doses of assafetida.

Twice I treated a highly intellectual lady for attacks of pruritus vulvæ and of vaginismus. The itching was intolerable and the sensitiveness of the genitalia so acute as to forbid every attempt at sexual intercourse. Each attack was brought on by mental overstrain, from exacting literary work, and much domestic unhappiness ensued. Several cases I have personally known, of ladies who had for months been treated for supposed uterine or ovarian disease, when their whole and only trouble was remorse at having had illicit intercourse or at having resorted to criminal abortion. I could spin out to an interminable length this list of cases illustrating the close and often very perplexing kinship between the brain and the reproductive organs, but time and space forbid, and these will suffice amply for my purpose.

For such cases as the foregoing ones, moral therapeutics are needed, and we may here take a lesson from the ancients. They, recognizing the influence of the mind upon the body, successfully used incantations concurrently with medicines. Savages imitate them by their herb teas and sweat baths, made mysterious by the pow-wows of the wizard and by the thaumaturgic pranks of the medicine-man. The incantations used by civilized nations at the present day—and I name them with all reverence—are alms, vows, spells, charms, pilgrimages, exorcisms, Christian science; the faith-cure, the laying on of hands, and other like forms of moral therapeutics, which unquestionably have cured and will cure so long as they produce dominant impressions. The legitimate incantations of medical therapeutics are now pretty much limited to distractions, diversions, to travel in foreign lands, to isolation, to hypnotism, to massage, to electricity, and above all to the personal magnetism of the physician, however exerted, for this is the kernal of the treatment and the greatest of all incantations.

Sometimes in these cases an operation acts the part of an incantation. The dread of the knife and the shock of the operation distract the mental attitude of morbid concentration; while the enforced rest in bed gives a chance to the worn-out brain to regain strength and to assert its supremacy over the mutinous lower nerve-centers. This leads me to think that in a large majority of operations upon trifling tears of the cervix, and on incomplete lacerations of the perineum, the good which may accrue comes less from the repair of those organs than from the mental distraction and the enforced rest. But this kind of incantation—the surgical variety—does not always work well; indeed, it often, very often makes matters worse. One striking example was that of a lady who saw her only child run over and beheaded by a locomotive. Her health began at once to fail, and she took to her bed with the hackneyed symptoms of weariness, wakefullness, a bearing down, an irritable bladder and many other canonical uterine reflexes. They were attributed by an excellent and conscientious physician to a torn cervix and to a torn perineum, which were accordingly repaired. But the added shock of the two operations made her very much worse. For these reasons I must confess to becoming far less inclined than formerly to operate on trifling lesions of the reproductive organs, and especially on small tears of the perineum, the repair of which is painful, unnerving and generally of doubtful expediency. I have become very skeptical of the influence of such lesions upon the general health, and have come to the belief that even in bad cases it is greatly overrated. In my experience the mistake usually made in these cases is that of attributing to the lacerations the mock uterine symptoms of nerve-prostration. About this there can be no error, for I have, over and over again, without any surgical treatment whatever, cured of all their ailments patients who have been sent to me for the very purpose of undergoing some operation on the womb, on the perineum, or even on the ovaries themselves.

Just as headache does not necessarily mean brain disease, so ovary-ache, groin-ache and backache do not necessarily mean ovarian disease. Nerve-strain and these aches are, it is true, correlatives, but the middle term which connects them is merely a disturbance in the circulation. Yet, time and again—and I say this deliberately—have ladies been sent to me to have their ovaries taken out, when the whole mischief had started from some mental worry. Their ovaries were sound, but their nerves were not, and no operation was needed for their recovery. The physician of the present day is too apt to jump from any distinctly female ache to an ovarian conclusion without the delay of any misgivings. The ache is in the back, then, he argues, it is probably ovarian; it is in the groin, then, of course, it is ovarian; it is in the head, but extremities meet, and surely it comes from the ovaries. I, indeed, have seen a painful nose and also a red one, attributed to the ovaries and treated canonically by the hot vaginal douche and uterine applications. From this wide-spread bias and pernicious haste the removal of the ovaries has degenerated into a busy industry by which, in city and in country, very many women have been and are being mutilated, both needlessly and on the slightest provocation.

So misleading, indeed, are the symptoms of a jaded brain or of other nerve-strain, under the uterine guise in which they often masquerade, that when a jilted girl, a bereaved mother, or a grieving wife consults a physician, he, unless on his guard, will be more likely to minister to a womb diseased than to a mind diseased. Such cases, even when associated with actual uterine disease, are not bettered by a merely local treatment. Nor are medicines by themselves of much avail. What they need are the incantations of the rest-cure, namely, massage, electricity and strict seclusion. Hope should be infused into every case, and above all there should be imported into it the personality of the physician. The riper my experience the more am I convinced that in the treatment of women's diseases the possibility of a nerve-origin or of a nerve-complication should be the *fore*-thought and not the *hind*-thought of the physician.—William Goodell, M. D., in *The University Medical Magazine.*

# PRACTICE.

## CLINICAL NOTES.

**Anderson's Vaginal Capsules.**—H. B. Maben, M. D., of Kingston, New York, relates his experience with this method of medication in the following terms: I have used the capsules almost daily ever since they were first made and find them in every respect satisfactory. I direct patients that I cannot see daily to saturate the cotton with a medicated solution and introduce the capsule, which saves much time to myself and is quite as satisfactory to the patient, with equally good results. They serve as a pessary, with healing properties unlike any other mechanical support, which usually irritates and is uncomfortable. They can be introduced and kept intact where the perineum has been lacerated and the ordinary pessary will not remain. In all the ordinary diseases of the vagina and cervix, where a simple application is desired, I know of no means as a vehicle so cleanly and convenient as the Anderson capsule.

**The Proteolytic Action of Papoid.**—The juice of the papaw has long been known to possess the power of dissolving and digesting proteid matter. At one time this peculiarity was looked upon as something quite unique, but in recent years other like ferments have been discovered in the vegetable world, and to-day several proteolytic ferments of vegetable origin are more or less widely known. Curiously enough there is nearly always associated with the proteid-dissolving ferment, a rennet-like ferment, just as we find the two ferments associated in animal secretions. Thus, in gastric juice, pepsin and rennin are close allies and companions, and similarly in the papaw a proteolytic ferment and rennet-like ferment are associated either in the form of a single substance endowed with the two functions, or more probably as two closely related enzymes. Papoid, a preparation from the papaw plant, has the power of digesting to a greater or less extent all forms of proteid or albuminous matter, whether coagulated or uncoagulated. Furthermore, papoid is peculiar in ~~that its~~ proteid-dissolving power is manifested in a neutral, acid and alkaline medium. To be sure, the proteolytic power of the ferment is not quantitatively the same under the above three distinct conditions, but it is plainly manifest in acid and alkaline solutions, as well as in a neutral fluid, provided of course the percentage of acid or alkali is not too large. With coagulated proteids, as cooked beef proteid, the highest digestive power is obtained in the presence of two to four per cent. sodium bicarbonate.

**Petroleum and Hypophosphites in Tuberculosis.**—On March 29 last I was called to attend a boy, W. B., aged five years, who had been poorly for some months, and occasionally under my care for chronic cough, want of appetite, et cetera. I found him suffering from whooping-cough, and fits occurring about 20 times per diem. He belongs to the pale, fair-skinned, bright-eyed type, which is supposed to be especially liable to tubercular disease. On examining his chest I found mucous râles all over back and front of both lungs, great frequency of respiration (60 per minute), but no other definite physical signs. Vomiting was frequent. Fever of a hectic type was present, and the evening temperature rose to 102° or 103°, being normal in the morning. Perspiration was very copious after coughing. From all these signs and symptoms, added to the fact that his father suffers from phthisis, and he had tubercular cystitis, I diagnosed acute tuberculosis of the lungs. Up to the 12th of April the boy continued to waste until he was little more than a skeleton, and I did not think he had many more days to live. On that date, however, having received a sample of Angier's petroleum emulsion with hypophosphites, I decided to try it on him, and after two days, finding him slightly better, I continued this medicine, with the result that on the 19th of April the cough occurred only once or twice in 24 hours, whilst a slight hacking cough remained. A few days later the temperature was quite normal in the evening as well as morning, and only one or two fits of coughing occurred in the course of a day, whilst the child could take food heartily, rapidly gained flesh, and could run about the room, whereas ten days before he was unable to stand alone. Of course, I know that the diagnosis in this case may be open to question, though there is little doubt in my mind. But most certainly the boy was reduced to extreme weakness and emaciation, and is now in fairly good health. Not having seen any results of a trial of this drug or combination of drugs published in this country, I shall be curious to know if any other members of the profession have found it of use in similar cases. —H. Rainsford, L. R. C. P. and C., in *The Medical Times and Hospital Gazette.*

A FAMILY LAXATIVE.—Physicians are not inclined to recommend self-medication to the laity. Yet there is one need which they are almost unable to supply. We refer to "the family laxative." The family physician is able to prescribe for the most complicated and obscure of maladies and yet, is often puzzled to know just what to give when asked for a remedy which can be kept in the house for family use as a laxative, that shall be effective, free from danger, and not unpleasant to take. When absent on our summer vacation we were asked by four different parties, representing as many families, what we thought of the "Syrup of Figs." Not one word did we volunteer on the subject, and we were somewhat surprised to find that there was this small token of the very general use of that preparation. These parties said they derived more benefit from it and found it more pleasant to take than anything of the kind they had ever used. The simple question with them was, is it a dangerous compound? We informed them that its active ingredient was a preparation of senna and that it was entirely free from danger. With this assurance they volunteered the information that they should continue to keep it in the house. The therapeutical properties of senna are so well-known that comment on this seems unnecessary. It might be well to notice, however, that Bartholow says it is "a very safe and serviceable cathartic," and that it is "highly prized as a remedy for constipation." He also makes the important observation that its use "is not followed by intestinal torpor and constipation." The simple truth of the matter is, we have altogether too few preparations which we can recommend to our families as effective laxatives. But the California Fig Syrup Company has one of the most desirable combinations for this purpose with which we are familiar. The Fig Syrup Company gives to the profession the composition of this preparation, therefore there is no secret about it; the persons who use this laxative speak in the highest terms about it; and we are pleased to notice that a large number of physicians are prescribing it. Viewed from the narrowest and most selfish stand-point the physician will lose nothing by recommending such a preparation as Syrup of Figs to his patients; while viewed from the highest stand-point of doing the best possible by those who place themselves in our care, we would say the profession cannot do better than give their indorsement to such a preparation.

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### WHAT RESULTS MAY BE EXPECTED FROM CELIOTOMY IN INSANITY, HYSTERO-EPILEPSY AND KINDRED NEUROSES? REMARKS WITH ILLUSTRATIVE CASES.*

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In order to arrive at definite conclusions having permanent value, the student must approach the consideration of any given problem with unbiased judgment and mind open to the truth. He must patiently investigate, analyze accumulated experience, reason logically, and from the sum total formulate his deductions.

In no department of medicine is this process of inductive reasoning of more importance than in the investigation of the relation of the diseases of the pelvic organs to mental sickness and hysteria in women. Unfortunately in the past the little that was done was undertaken with preconceived ideas, and the results obtained were, as is usual in such instances, found to tally with the individual observer's theories and opinions. The difficulties in the way of study in this particular line, however, have left the subject almost untouched until within the past few years, but now, thanks to the humanitarian spirit which has prompted the people of nearly every State in the union, and to that private benevolence which looks to the welfare of its fellow-man, the housing of large numbers of these outcasts of society under one roof in our great asylums and private retreats has made systematic and intelligent work in this direction possible. But even to-day we not infrequently hear that a lack of sympathy between specialists in two departments hampers, if it does not actually stop, all scientific inquiry into this important question; and now and again the laity, with a blindness begotten only of ignorance, seeks to place almost insurmountable obstacles in the way of progress and light.

The antagonism which exists, or is supposed to exist, between the alienist and the gynecologist, is perhaps more apparent than real, and is solely caused, it seems to me, from a difference in point of view.

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*Read before the Detroit Medical and Library Association.

On the one hand the alienist, trained in the exact observation of mental and nervous phenomena, too often overlooks the really serious consequences which may be brought about by disease of the uterus and its appendages, and while acknowledging the importance of somatic affections and peripheral irritations as causative factors in the production of insanity and nervous disorders, fails, in many instances, to note the possible connection between local disease and psychic and nervous manifestations.

On the other hand, the gynecologist, familiar with the wide reaching influence exerted by morbid conditions of the reproductive organs upon the female economy, and too ready to assert himself in untried fields, although usually ignorant of mental and nervous pathology, often sees direct cause and effect in genesic ailments and psychic and nervous deflections, which, perhaps, are dependent wholly or in part upon structural changes in the brain or spinal cord. The proneness of the gynecologist to ascribe neuro-psychic conditions, of which he knows next to nothing, to local disease, and the too great tendency of this latter day to operative interference in all conditions which seem to have their origin in the female sexual tract, must often, in the nature of things, bring down contumely and shame upon the specialty which he so persistently, and "not wisely but too well" strives to promote.

It may be stated, I think without fear of contradiction, that the average gynecologist is possessed of about as little knowledge of psychiatry as is compatible with existence, while the alienist is equipped with a stock of information regarding the local diseases of women equally profound. In order that the solution of the relation of local to mental and nervous disease may be advanced, and the sufferings of women afflicted with brain and nerve sickness ameliorated, an intelligent, honest and scientific coöperation on the part of the representatives of both specialties is emphatically necessary.

While it is not within the province of this paper to discuss whether local disease does or does not act as a factor in the production of mental and nervous disorders, it is well known to every practitioner of any experience that such is undeniably the fact. Uterine and appendigeal diseases, by their influence on the nutrition and functions of the body, not infrequently cause mental depression which may ultimately lead to insanity;—or developing in the already insane, they not only aggravate the mental disease, but also furnish a focus for the development of delusions and hallucinations.

That this result is not met with in the usual run of cases, is no argument against the truth of the assertion. Given the proper medium, if I may make use of a bacteriological term, that is a neurotic heredity, or predisposition, the engrafting of local morbid processes on such a soil will, in very many instances, result in a mental or nervous breakdown.

As illustrating the influence of local disease on the form of delusions, the following three cases may be cited:

* A widow, aged forty-nine years, with strong hereditary tendency to mental disease, and an inmate of the Eastern Asylum for a period of eleven years, dis-

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* Historical notes taken from the "Biennial Report of the Eastern Michigan Asylum, 1892,"—where a more detailed account of the case may be found.

played during that time hypochondriacal fancies, sexual delusions and delusions of persecution. At the beginning, owing to suspicions of poison, and consequent refusal to take a proper amount of nourishment, to which was added at one time a temporary, although rather serious, lung disorder, she became much emaciated, and could not exercise without fainting. Following this, however, her physical health improved greatly, and she took on flesh so rapidly as to become unwieldy. During this time dementia advanced slowly, and her delusions became increased and intensified. She fancied herself chloroformed and ravished at night, had delusions of contamination, and complained of a strong odor in her room, due to the presence of "nasty men,"—certain female patients to whom she took a strong dislike. Later she complained that there was some one in the cellar hurting her private parts. These and other sexual delusions were always more pronounced at the menstrual epoch. Following this the patient's mental condition became more comfortable, she was pleasanter to those about her, and was able to take a moderate amount of exercise. At this time she confided to an attendant that ever since her marriage she had suffered from weak extremities and back. The excessive corpulency which she developed was a source of great inconvenience, but an investigation of the chest and abdominal organs failed to reveal the presence of any abnormality. From this time on she suffered from recurring attacks of phlebitis, with occasional nausea, and finally took to her bed. It was then discovered that the abdomen was distended by ascitic fluid, the rapid increase of which soon seriously interfered with respiration, and death seemed imminent. The abdominal walls were so tightly stretched that palpation of the viscera was impossible, and in order to give the patient more breathing room, I resorted to tapping. The fluid being too thick and viscid to flow through the cannula, celiotomy was performed a few hours later. A very large amount of free fluid was then evacuated, and back of this a large multilocular ovarian cystoma was discovered. The growth sprang from the right ovary, and there was a half twist of its broad pedicle. The patient did poorly following the operation, and died four days later from exhaustion.

Commenting on this case, DOCTOR C. B. BURR, Superintendent of the Eastern Asylum, remarks: "To my mind, the character of her delusions points to ovarian irritation, and the conclusion seems to be reasonable that had an operation been performed earlier in her disease, before mental degeneration was so far advanced and delusions so firmly fixed, good might have resulted."

* A. P., a woman, single, aged thirty-six years, was admitted to the Eastern Michigan Asylum in 1885. She had always shown a lack of application and adaptability, was naturally suspicious, apt to misconstrue motives, and erratic. Mental disease was said to have existed for ten years. She denied relationship with the members of her family, and called herself "Queen Anne." At one time she expressed the delusion that she had been *ravished.* She alleged conspiracy on the part of her relatives, claimed that she was an adopted daughter of R. P., and that he, dying, had made her sole legatee. Upon this she based her claim to all the property in possession of the family. "Some one" had told her, ten years ago, that there was a vault in the house filled with gold that belonged to her, and this she made unsuccessful attempts to find. She did not explain the

reasons for believing herself of royal lineage, but alleged that if opportunity were offered she could prove it. She displayed a reluctance to comply with the rules of the institution because of superiority to those about her, and to all regulations, signed herself "Princess," was selfish, and would work for herself only. In July, 1886, about one year after her admission, physical failure was noticed. Her countenance became sallow and she lost flesh, but opposed any investigation of her case. From this condition recovery soon took place. In August of the same year she expressed the delusion that she was the mother of ten children, became more elated, signed herself "Lady A.," disposed of hall property on the ground that it was hers, by throwing it out of the windows, and was pleased to discard her night dress after one night's wearing. She expressed delusions of poison. In the year 1887 she was more industrious, but was inclined to seclude herself, and closed the opening to the ventilating flue with a cloth to prevent the "hot gas" from descending. She called herself "Richard the Lion-Hearted's Daughter." Her physical health was fair, but on one occasion she had an attack of vomiting, the cause of which could not be discovered. In 1888 she developed the delusion that there was *a child concealed in her mattress*, and frequently tore it open under that impression. In the same year the note is made that she "is apparently losing mental force, and her conversation has less point and coherency." She still disclaimed relationship with her family, and was alternately patronizing and rude toward her relatives when they visited her. In September, 1888, physical failure is again noted. She complained of bloating and pain in the abdomen. Her pulse was weak and intermittent, and she suffered from menorrhagia and metrorrhagia, an interval of but two weeks occurring between periods of flowing. There was also present at this time a subacute rheumatism, referred to the knees. In the following January, 1889, she declared that her head was "*filled with babies*." On one occasion she contracted a cold, from exposure consequent upon removing her mattress from the bed, under the impression that there were "*young ones in it that might crawl into her*." She asserted that she was the "fourteenth daughter of King James," that her name was "Iceldoor," because her father was born in the arctic regions as the result of union of the temperate and frigid zones. In March she had a *sensation in the abdomen*, which caused her to request the physician to listen to "*hear the young ones*." In April, 1891, there occurred a complete change in these impressions. She then, for the first time, claimed that she was a man, desired to be called "Mr. Leslie," and alluded to her clothing as if she thought it was that of a man. Later she wished to be known as "Lord Halton" showed a marked preference for the society of men, and was extremely indignant toward the attendants for bestowing upon her ordinary attentions. She sat in her room much of the time, assuming man-like attitudes, wore her dresses looped up above her shoe-tops, parted her hair on one side; declined to walk with the party, because out of place with women, and demanded that a barber come upon the hall to shave her at regular intervals. In March, 1892, she expressed the delusion that there were *children in her body*, which could not be born because children were only born of women. Her physical health became much improved, although the flow from the uterine cavity was profuse, frequent and irregular. In April, while convalescing from a fever, she complained of pain in her right side. Examination showed an enlarged abdomen, over which there was an extended area of dullness, and two small tumors, apparently in the abdominal wall.

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* Historical notes from a paper by C. B. Burr, M. D.—"Paranoia, with Delusions of Change in Sex.—*The Buffalo Medical and Surgical Journal,* November, 1893.

In June, 1893, I performed supravaginal hysterectomy upon this patient. For some time after the operation she retained her aversion to the attendants and other females, indulged in improper language to those about her, persisted in considering herself a man, and upon being called "Jim Michilimackinac." When permitted to sit up, however, her mental condition underwent a decided change, and from being irritable, profane, inclined to seclude herself, and disinclined to engage in any occupation, she is now agreeable, inclined to enter into conversation, does not shun society, and occupies herself with various duties. While the delusion that she is a man still persists, it has become so modified as to permit her to be on friendly terms with those about her, and to enjoy the society of other women. The delusions of babies in her abdomen and in the mattress have disappeared.

In 1890 I removed a fibroid tumor, weighing somewhat over three pounds, from the abdominal walls of a young married female at the Northern Asylum. The patient was a paranoiac, with delusions of persecutions. The tumor had made its appearance early that spring, and had grown so rapidly that, at the time of operation the patient appeared about six or seven months pregnant, a condition which she fancied was a fact, and apparently enjoyed. The removal of the growth completely cured the delusion, but, although she improved physically, the mental condition was not otherwise changed.

My studies during the past few years, in the various asylums with which I am connected, have conclusively demonstrated that insane women suffer, in many instances, as acutely from uterine, tubal, and ovarian disorders, as do their mentally sound sisters, and I have also found that the amelioration or cure of these affections has been followed in every instance by improvement in both bodily and mental health.

In connection with the three cases just mentioned, two more may be added as illustrating this point.

A woman, aged thirty-four years, was admitted to the Eastern Asylum in December, 1888. For several years she had been delicate, and for eight or ten years nervous. In February of the same year (1888) she had suffered from ascites coëxisting with an abdominal tumor, the nature of which was not determined. Eleven quarts of light-colored fluid were drawn off from the abdomen at this time. There was much pain following the tapping, and about a month later she developed a low form of fever, from which she passed into a state of acute mania, frothing at the mouth, barking and snapping at those about her so that she was thought to be affected with hydrophobia. As soon as convalescence was established she became indecent in her language, untidy in her habits, and inclined to assault those about her. On admission to the asylum she was extremely feeble and emaciated, and much depressed mentally, having delusions of apprehension. Her general health, however, improved slowly under careful attention, but she never became strong or robust.

On January 1, 1889, her feet appeared much swollen, and her eyelids were puffy in the morning. It was thought that she was failing fast, and that her condition was exceedingly precarious. I examined the patient for the first time at this period of her sickness, and discovered a kidney-shaped tumor in the abdomen, the position, shape and feel of which rendered a positive diagnosis between cystic kidney, and cystic tumor of the ovary impossible. At the operation, which was done as soon as the patient could be put in proper condition, an ovarian cyst weighing five pounds was removed, and the opposite ovary, which was much enlarged and cystic, was also ablated. For several days following the operation, the patient's mind was perfectly clear and her conversation rational, but later the intellect became somewhat dull and clouded, and she remained with closed eyes most of the day. As she had repeatedly expressed a desire to return home for a visit this was permitted as soon as her physical condition warranted her so doing. But the anticipated pleasure was not realized, she became restless, expressed her disappointment at the unnatural appearance of things, and after emphasizing her disapproval of her surroundings by jumping into the well on two occasions, she was again returned to the asylum, having been absent just four days. The immediate clearing up of this patient's mind following the removal of the ovarian new-growth, gave rise to the hope that permanent recovery would result, but it was subsequently discovered that she was the victim of chronic Bright's disease,—the relation of which to insanity has been so ably described by CHRISTIAN.

A widow, aged thirty-six years, the mother of several children, was admitted to the Eastern Asylum in 1889. She suffered from epileptic dementia, and was a most irritable, profane and disagreeable patient. A ventral hernia of considerable size, the result of the giving way of a cicatrix from some former operation, was the source of a great amount of pain and inconvenience, especially in getting up and down stairs. At the time when I first saw the patient, the skin of the lower surface of the projecting mass had begun to ulcerate. As the result of an operation for the cure of hernia the patients physical health was much improved, she became much less irritable, pleasanter in her conversation, and less objectionable in her conduct.

The question of the expediency of removing the normal, or nearly normal, tubes and ovaries from insane women with the sole object in view of restoring their mental faculties, is to my mind, an altogether doubtful one. In most cases seen the pathological changes in the brain have probably advanced to such a degree that the removal of the appendages would have little effect. At an early stage in the insanity, before organic changes in the cerebral centers have taken place, much might be expected from such procedure in properly selected cases. It seems to me, however, that too much stress is placed on the curability of the mental disease, and too little on the relief of the physical suffering. To my mind the latter is of more importance than the former, because, if the statistics of any institution are taken where the histories of cases are carefully and honestly recorded, we will find that, under any conditions and by any methods, the percentage of actual recoveries from insanity is exceedingly small. What reason have we, therefore, to suppose that the removal of the appendages, especially where these are not involved, would add in any way to the sum total of cures? I report the following four cases, for the reason that in all but one, the mental condition seemed to be so aggravated by the local irritation that it was hoped that by the removal of the latter the former would be modified if not cured.

* J. P., aged thirty-one years, was admitted to the Michigan Asylum in March, 1890. Hereditary history as regards insanity or neuropathic tendencies is

negative. She is of sanguine temperament, and has always been active. Puberty developed at the age of thirteen, with no unusual trouble. At the age of fifteen, connected with suppressio-mensium, she had a convulsion, said to have been, "hystero-cataleptic" in character. These convulsions continued for a period of one year, but after the primary one were not connected with any menstrual trouble. At the age of seventeen her first mental symptoms showed themselves, and co-incidently with the menstrual epoch. She exhibited all the characteristics of defective mental inhibition. From this attack she entirely recovered, and showed no further tendency to mental disturbance until the age of twenty-one. During the interval, however, she was semi-hysterical and this condition was always exaggerated at the menstrual periods. At the age of twenty-one, the date of her admission to the asylum, her present mental trouble began. She was impulsive, and showed much perverted mental action. During her residence in the asylum her attacks have been varied, but they have always been connected with the period of menstruation, sometimes before and at other times after the onset. On certain occasions these attacks will be complicated with convulsions, evidently hysterical in character. Primarily her periods of excitement were of short duration, and she could be comparatively well controlled, but of late the attacks have become exaggerated and of longer duration. These periods of impulsiveness occur twice during the month, namely, at the menstrual period, but occasionally they can be avoided, and, by a strong effort of the will, she has often controlled herself to a great extent. At times there are prodromic symptoms, consisting of a feeling of malaise, and a strong tendency to simulate physical disorders. More often there are no premonitory symptoms and she will pass at once into one of her characteristic "spells." Mental symptoms consist in defective mental inhibition, the symptoms being varied and manifold, with impulsiveness as the most prominent manifestation. She menstruates twice during the month, and evidently suffers from dysmenorrhea. During the interval she is quiet, cheerful, engages in occupation and amusements, and there can be detected but little mental impairment.

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* I am indebted to DOCTOR J. H. NEFF, Assistant Physician, for the notes of this case, and DOCTOR WILLIAM M. EDWARDS, Superintendent of the Michigan Asylum for much information regarding her condition.

On account of the intimate connection between the disturbed periods and the menstrual process, the advisability of removing the uterine appendages with the consequent stopping of the monthly flow was considered. The patient herself was anxious for anything that would relieve her distressing condition, and expressed great hope in the efficacy of the operation. This was accordingly undertaken November 4, 1892.

The recovery from the operation was practically uneventful, the only drawback being a tendency on the part of the patient to pick at the scar, which somewhat retarded the healing of the wound. December 14, Doctor Ostrander, assistant physician at the asylum, writes: "Miss P.'s mental condition, I think, is somewhat improved. She has been actively disturbed once since she has sufficiently recovered to be up and about the ward. This disturbed spell lasted but a comparatively short time, however."

The patient's mental condition continued to improve to such a degree that in May she returned to her home. During the early summer I received two or three letters from her, in which she complained of an almost constant loss of blood from the uterus, associated with frequent vomiting of blood. The uterus was curetted once at the asylum for this condition, and once or twice at the patient's home, with relief. The vomiting of blood was evidently of hysterical origin. The patient returned to the asylum for a short time later in the season, and then returning home, nothing more was heard from her until early in January of the present year. At that time it was ascertained that she had applied for and obtained a position as an attendant at the Northern Michigan Asylum, where she had had one of her attacks, and from which institution she was returned as a patient to her former retreat at Kalamazoo.

Doctor A. S. Rowley, of the Northern Asylum, has kindly furnished me with an account of the patients condition during her residence in that institution.

J. P. began her service with us December 30, 1893. When first seen she was quite confused and rather emotional. The matron, who, at my request, followed her into the ward, with the view of questioning her further, was of the opinion that she was very much embarrassed, or not exactly right mentally. Notwithstanding her unstable condition, she did her work well and seemed better for a few days. On January 7, she wrenched her wrist in handling a disturbed patient, and made a great ado about it, saying that she had been hurt before in the same place, and that she thought that the carpal bones were crushed. There was little or no swelling and no displacement, but a "bond" splint was applied and kept on for several days. In the meantime Miss P. remained in bed a great deal; when seen about the ward she was usually engaged in writing letters. On removal of the splint there was no swelling or dislocation, but she complained of great pain whenever the wrist was moved. I reapplied the splint, casually remarking that I could not account for the extreme sensitiveness of the forearm. This remark seemed to convey a special meaning to the patient, for soon after I had departed she tore off the splint and went about her work. She soon gave up again, however, making more ado than ever about the wrist. The splint was re-applied and the patient went to bed. This was the last of the joint manifestations. She ate fairly well until the morning of the 11th, when she refused breakfast and had several vomiting spells. There seemed to be little nausea or discomfort. The ejected material contained considerable blood, dark colored, but not clotted. On the 12th she was better, neither vomited nor complained of the wrist, and was on duty most of the time until the 16th. During this period she vomited occasionally and was quite restless nights. On the 16th, after taking a long walk with a party of patients, she went to bed and slept for about four hours. When awakened she was much confused, and almost incoherent in her talk. Later on she became much excited as the result of hallucinatory impressions, would talk to individuals whom she imagined present, and her symptoms were extremely protean. The ecstatic condition with theatrical attitudes was frequently noticeable. From this time until her removal to Kalamazoo, January 23, Miss P. required constant attention day and night.

Under later date, Doctor Edwards writes me:

She has been more actively disturbed. Her condition is at present one of excitement, and she manifests the ordinary symptoms of mania. Her symptoms are, of course, considerably modified by the hysterical element which is present and she is also somewhat impulsive. Since the operation which you performed upon her she has had none of the convulsions which she formerly had quite frequently and for a time she had gained considerable self-control; but since her return to the asylum, she has shown marked deficiency in this respect. There are also present some transitory delusions, and she has genuine delusions of a depressed character. As you will note from the above description, she presents new symptoms at the present time but her condition is essentially the same as during her former residence here, one of defective mental inhibition. While I do not regard her operation as curative in any respect, I think that it has produced some amelioration in her symptoms. I cannot, however, say whether this will be continued.

S., an unmarried girl, aged nineteen years, was admitted to Eastern Asylum in 1890. Her maternal grandfather had epilepsy. The patient's illness had begun at the age of six; her mind was naturally somewhat feeble, she had always been erotic, and was suffering from dementia, the result of epilepsy. Her erotic tendencies had led to her betrayal, and she was pregnant at the time of her admission. In December she was returned to her home to be confined, was delivered of a stillborn child (breech presentation). and re-entered the asylum in March, 1891. As it was noted that the epileptic seizures were more apt to occur at the menstrual periods, salpingo-oöphorectomy was performed, hoping that thereby the symptoms might at least be mitigated.

Doctor Burr says: "No appreciable improvement occurred in her nervous condition in consequence of the operation, although she was kept under observation to determine this question. Her correspondence subsequent to her removal, however, indicates that her moral tone has much improved."

A letter from the family physician, received by me about a year after the operation, states that as far as he is aware, there has been no change in the frequency or number of the convulsions, but that the patient had married and gone to live in another town.

* W., aged twenty-five years, of good heredity, but naturally stubborn, self-willed, and variable in moods, came under observation in 1885. Insanity was attributed to religious excitement (?). She had recurrent attacks of maniacal excitement, during which she was controlled by delusions of suspicion and apprehension, alternating with periods of composure, during which she was ladylike, industrious, self-controlled and remorseful for her conduct during excitement. Notwithstanding a long period of treatment in the institution, her condition did not materially improve. In excitement, which was always present in greater or less degree at the menstrual epoch, she had sexual delusions, was emotional, and the subject of psychical storms, during which she was prone to assault others about her. She placed credence in the delusional statements of other patients, and was accustomed to say that she had never controlled herself and never would. She suffered from habitual constipation, and experienced pain and headache at menstrual periods. Two years after admission she was taken home for a visit, having shown for a considerable period of time comparative freedom from mental disturbance. This condition did not continue, however. While at home she had intervals of quiet, during which she controlled herself, but at menstrual periods was irritable, suspicious and impulsive, prone to make assaults, disorderly, and full of wrong ideas of life. In March, 1890, it was noted that the marked coincidence between mental disturbance and the menstrual function she herself recognized and frequently referred to. For a time preceding and during menstruation she was extremely impulsive, avoided the society of others, was careless in her personal appearance, used profane

language, and destroyed clothing and other articles. Between these periods she was comfortable, and would express regret for such conduct.

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* "Biennial Report of the Eastern Michigan Asylum, 1892," page 76.

In November of the same year I performed salpingo-oöphorectomy. The report goes on to state—

After the operation her moods were variable, as before. She ceased to menstruate. Periods of mental confusion frequently took the place of previous excitement, but on occasions she was much disturbed. Her appetite was capricious. She was removed from the asylum in August, 1891. In general, it may be said of her mental condition, however, that up to the time of her removal she had been more comfortable since the operation than before. There was less of active, noisy, turbulent excitement, and she was more easily controlled. The attendants who had the immediate responsibility of her care felt that the operation had been productive of decided benefit.

A report from the Superintendent of another institution in which this patient was placed after leaving Pontiac, would seem to indicate that her mental condition was considerably improved.

M., aged twenty-eight years; single; admitted to the Eastern Asylum in 1884. Her mental trouble, which eventually assumed the character of chronic dementia, was ascribed to vicious habits. She had been bright and of cheerful disposition, and was successful as a school teacher, but owing to prolonged vicious indulgence had become degraded, untidy, erotic, violent and in every respect difficult to care for. Her erotic excitement was always worse at the menstrual epoch, and with a view to diminishing the periodical congestion of the sexual organs, I removed the appendages in April, 1890. While the results have not been a complete cure in the matter of the masterbational habit, the change for the better has been remarkable, in every way, both mentally and physically.

The cases thus far presented have all been asylum patients, in whom mental degeneration had progressed to a greater or less degree. In order that I may round out my subject, I desire to briefly refer to a class of patients, in which the nervous manifestations are purely of the nature of hysterical explosions, and usually, though not always, occur at the menstrual epoch.

M., a case of hystero-mania, due to diseased appendages. The patient had been under the observation of the late DOCTOR F. W. BROWN and myself for rather more than a year, and every form of treatment had been thoroughly tested before resort to operative measures was had. Both tubes and ovaries were seriously diseased and bound down in the pelvis by a mass of adhesions. Following the operation, the patient recovered entirely from her previous condition, and has, with the exception of two or three mild attacks at distant intervals, remained free from the maniacal explosions ever since, a period of over four years.

U., a girl of about eighteen years, referred to me by DOCTOR F. W. MANN, in 1891, was subject to hystero-epileptic attacks, for which a great variety of remedies had been employed with little or no result. After removal of the appendages she remained free from the attacks so long as she was under observation. A letter from the patient's mother, received by me about a year ago, states that she remained in good health.

McL., married, aged twenty-two years, the subject of hystero-epileptoid seizures, referable particularly to the menstrual period, was referred to me by

DOCTOR A. W. IMRIE, in 1891. Previous history of the case is wanting, other than that she had been under treatment by a number of physicians in different cities, several of whom had recommended removal of the appendages. The paroxysms were quite severe, and caused her much distress. Following the operation she had no return of the trouble so long as she was under observation, which, however, was only for a short time.

In only one of the above cases were the organs removed found to be in a healthy condition.

### CONCLUSIONS.

(1) The careful observation and study of a large number of insane women during a period of several years, has demonstrated the fact that they, in the majority of instances, suffer as acutely from existing local disorders as do the mentally sound, and that proper treatment, either by surgery or other means, is followed by the same somatic relief as in the latter class, while the mental condition is often markedly benefited. Indiscriminate operating, particularly the removal of the uterine adnexa, where the symptoms do not connect to a considerable degree the local organs and the brain sickness, is greatly to be deprecated. Such operations should never be undertaken without the advice and sanction of a competent alienist.

(2) In cases of hystero-mania, hystero-epilepsy and kindred neuroses, the removal of diseased appendages is both justifiable and humane; while in cases where the organs are not seriously affected, but the nervous paroxysms are aggravated and intensified by the monthly engorgement of the parts, all other means of relief having proved of no avail, salpingo-oöphorectomy will often result in the greatest benefit, and not infrequently lead to the complete restoration of the patient's health.

## THE SYMPATHETIC NERVOUS SYSTEM.*

BY W. F. METCALF, M. D., DETROIT MICHIGAN.

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I HAVE some cases to report, but before doing so, with your permission I wish to present the picture we have to-day of the Sympathetic System.

Two cords, one on each side of the spinal column, containing at intervals ganglia, which receive branches from both anterior and posterior roots of the spinal cord, and connected with the cranial nerves. These cords connect plexuses, which lie along the spinal column, similar plexuses being continued to accompany the vascular trunks becoming smaller and smaller, until the periphery being reached they are microscopic. Small ganglia are found at the decussation of the fibres in these plexuses.

By the newer methods of examination, there are found in the plexuses of the intestines, the walls of the arteries, and in the stroma of glandular organs, small cells giving off processes that ramify again and again, and end by free extremities among the muscular epithelial elements, each cell always giving off a long process which enters into the formation of the interganglionic cord. These cells apparently resembling in character those which collect impressions from the retinal rods and cones, and from the mucous membrane of the auditory passage.

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* Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

Now, leaving this picture of the sympathetic system as a whole, let me call your attention to some of its parts.

(1) Continuations of the cervical plexus accompany the vessels which enter the cranium.

(2) There are fibres arising from which each of the cervical ganglia, and sometimes one of the first thoracic ganglion, uniting with branches of the pneumogastric and extending to form an intricate plexus around the base of the heart, and under the arch of the aorta. From this plexus fibres pass along the coronary arteries, the descending aorta, and to the pulmonary arteries, uniting with the pulmonary plexus. Many microscopic ganglia are found on the fibres which pierce the heart muscles, and are apparently the controlling agency in its action, which explains the heart pulsating after being removed from the body.

(3) The greater splanchnic is formed by branches derived from the sixth, seventh, eighth, and ninth thoracic ganglia, the lesser splanchnic from the tenth, eleventh, and twelfth thoracic ganglia. The root from the twelfth is sometimes independent, and is known as the renal splanchnic. Occasionally a splanchnic is formed from the first thoracic, or from the cardiac plexus. From this irregularity in formation we may infer irregularity in distribution, which may explain some clinical phenomena.

These splanchnics pass through the diaphragm and join the largest plexus of the system, the solar plexus or the abdominal brain, containing the largest ganglia. Off-shoots from this plexus accompany the vessels which supply the abdominal viscera.

One of the terminal plexuses of this division lies between the muscular layers of the intestines and of the stomach, the plexus myentericus externus, which probably controls peristalsis. In the submucosum is found the plexus myentericus internus, which controls the small vessels and the muscular fibres of the mucous membrane, and therefore controls secretion.

The solar plexus being continued downward along the abdominal aorta is over the last lumbar vertebra, known as the hypogastric plexus, and over the sacrum as the inferior hypogastric plexus, which is extended along the internal iliac artery.

These lower plexuses abound in minute ganglia, and are intimately connected with the genito-urinary organs and rectum, an off-shoot from the inferior accompanying the uterine and vaginal vessels.

At the fundus of the vagina surrounding the cervix uteri a ganglionic mass is found. From this is derived all the nerves which supply the lower portion of the uterus. They form plexuses within its mass between its muscular layers but no ganglia are found there.

When a sympathetic nerve is cut, the vessels to which it conveys tone—the life force—dilate, when the peripheral end is stimulated the vessels which it supplies contract.

I wish you to concede to me, gentlemen, that there is only one force in the universe, and the privilege to call your attention to a theory, thinking that by the efforts to prove it untrue, we may arrive at a simple method of translating various pathological phenomena. I act upon this theory because it pays.

There is a force, known only by its effects, which as manifested in the holding of material things in relation to common centers, is called gravity; in maintaining the animal or vegetable creation, is called life; in man's relating himself to his fellow, and to his environment, is known as mind; as it travels along the wire, manifesting itself only when it meets resistance, we call it electricity.

In this paper I am dealing only with that phase of the force called life, which passes along the fibres of the sympathetic system in the human body, and which governs the caliber of the arteries, the action of the heart and lungs, and excretion of the waste products. This force manifests itself in the individual first when the spermatozoon comes in contact with the ovum, in sequentation, differentiation and development. It governs all the organic functions until dissolution or death. We would be unconscious of the presence of electricity in the wire were it not for some resistance to, or break in, the circuit. Man would have a feeling of physical well-being, all his parts would work in harmony, were there no irritation to his sympathetic system, over which the force, life, flows.

Health is a condition of equilibrium of the force functioning as life, and as mind, and of the two related. Disease is a disturbance of this equilibrium. This thought is the logical outgrowth of the idea of the physical organism, which, as other organisms, must have a law governing it. To give credit to all those who have developed the different phases which made possible the observance of this law would require a volume, and we will leave that to the historian.

Disturbances to the mind may cause it to leave its natural channels and pass into and disturb the sympathetic centers, or disturbances to the force, life, may cause it to pass out of its natural paths to enter and disturb the cerebro-spinal centres, and therefore the function or movement of the mind.

Thus, we have tears produced by an emotion, or by a cinder in the eye. We find perspiration produced by mental exertion, or by the passing of a catheter into a sensitive urethra.

We may thus explain the failure of a remedy to cure a diarrhea or a dyspepsia in cases subjected to commercial disaster, disappointment in love, or unfortunate domestic relations.

The pathway of the mind is the cerebro-spinal nerve. Its central office the brain, which controls every action. There cannot be diseases of the mind, any more than there can be diseases of life, light, gravity, electricity, affinity, love, but this force in any of its functions may be disturbed by a defect in its circuit. The pathway of life is the sympathetic nerve fibre, its central office the solar plexus. A cerebro-spinal system is not essential to organic life, and depends directly upon the sympathetic for its nutrition. In man the cerebro-spinal system has to do with the procuring of food, but the sympathetic takes care of it after it enters the esophagus.

Afferent sympathetic fibres convey from the different tissues to the sympathetic centres intelligence of their condition; the efferent fibres control the calibre of their blood-vessels, and therefore their nutrition. Messages from many or all of the tissues demanding nourishment overflow the sympathetic centres into the cerebro-spinal and are recorded in the cerebrum as hunger, a condition which the cerebro-spinal seeks to remedy.

If colloid degeneration or miliary sclerosis or other pathological changes in the cerebrum produce primary dementia, why may we not, in a case of a pathological solar plexus, have insanity of action in the organs of the human body, controlled by this force, life? If we have rupture of blood-vessels in the cerebrum under circumstances of great excitement, when the brain is most active in receiving messages, and making great effort to order and transmit them, why may we not find apoplexy of the abdominal brain, when messages are overflowing it, especially when it has already been over-worked for months.

To report cases relating to the preceding facts and deductions would require more time than is allowed me. I therefore shall report but one case and a few others, which tend to prove its translation.

*Case I.*—MRS. H., aged thirty-nine years, came to my office November 14, 1893, complaining of pruritus vulvæ. Her pulse was rapid and complexion sallow. She said that she frequently suffered from headache.

Examination showed irritated labia, also a tumor of the anterior uterine wall. I ordered hot antiseptic douches and told her to return in a few days. I was called to see her December 1, found her having intense pain in the pelvis, the uterus with its tumor being fixed between and pressing upon the pubes and sacrum, the tumor having increased markedly in size since the first examination, two weeks previously. I advised consultation with a view to operation. She was removed to the Woman's Hospital, where on December 7, DOCTOR LONGYEAR removed the uterus with a soft myoma in its anterior wall. After the abdomen was opened, and the organ lifted from the pelvis, incision was made across at the upper part of the cervix uteri, the sutures in the stump serving as ligatures to the vessels. A drainage tube was passed through the vaginal vault, in the posterior cul-de-sac, and the abdominal wound closed. The operation was expeditiously, neatly and well done.

Under chloroform the pulse improved. A few hours after the operation a pain shot across the upper part of the abdomen, indicating the receipt of a message in the plexus myentericus externus, causing contraction. In a few hours the pain ceased and tympanitis began in the upper part of the abdomen, indicating the absence of tone or life-force, due to paralyses of the terminal ganglia. The tongue became dry and heavily coated with a deposit of bile-pigment, perhaps owing to the ganglia of the liver failing to coördinate the messages which were rushing in upon them. Vomiting or contraction of the muscular stomach walls caused by stimuli reaching the ganglia between its coats, was an early symptom. At first the vomit was simply mucus, then either because of the current overpowering the ganglia in the submucosum or because of the incompetent solar plexus, the vessels in the stomach lining became dilated, red blood corpuscles exuded through their paralyzed wall, and the vomit became black.

Irritating enemata caused the passage of some gas and fecal matter, yet the upper part of the abdomen remained distended. The passage of the stomach tube showed that the gas was not in the stomach. Post-mortem showed it to be in the transverse colon. The substances injected influenced only the local ganglia, the abdominal brain having apparently lost the power of being influenced. There was therefore contraction only of the coats of the descending colon. Hypodermic injections of digitalin and nitro-glycerine had little or no effect upon the heart's action, tending to show that the centres had no communication with the peripheral stations. There was slight elevation of temperature. We suspected peritonitis. She died about fifty-four hours after the operation.

Autopsy showed no peritonitis, no sepsis, stump appeared healthy. There had been no hemorrhage, but we found an ecchymotic condition of the solar plexus. Circumstances would not permit the examination of the other plexuses.

What would be the rational treatment of such a condition? Perhaps all efforts would have been futile. It may have been a fatal apoplexy, but until autopsy reveals the fact we cannot know but that it is simply a temporary functional disturbance. It may be that we should go to the station where the confusing messages are being started, to prevent their being sent. It may be necessary to cut this station off from the general system. But in this particular case where did the murderous irritation originate? I have already referred to the mass of ganglionic tissues surrounding the upper part of the cervix uteri. Through this tissue the ligatures were passed. Perhaps this ganglionic mass should have been dissected out, or perhaps when untoward symptoms appeared, the stitches should have been cut. But this proposed treatment is apparently founded upon a supposition. Permit me to report other cases tending to show this, the source of irritation.

*Case II.*—January 27, 1891, I operated upon Mrs. A., aged thirty-seven years, for epithelioma of the uterus, removing the organ with its appendages per vaginam, using twisted silk as ligatures, and doubtless constricting some of this tissue in question. There was no hemorrhage, no symptoms of peritonitis, kidneys and bowels acted naturally, highest temperature 99.5, no chills. The heart suddenly failed on the fifth day. Stimulants hypodermically had apparently no effect upon its action. No autopsy was permitted.

*Case III.*—In operation for lacerated cervix, January 1, 1891, the cicatrix on the side extended downward from the internal os, and outward to the vaginal attachment. The stitch which approximated the tissues, after the cicatricial mass was dissected out, caused constant pain in the back, and rapid pulse until it was removed on the seventh day.

*Case IV.*—Mrs. S., June 16, 1891. Vaginal hysterectomy for cancer of the uterus. Used clamps. There followed moderate fever, some tympanitis and rapid heart action. I applied the cold water-coil to the abdomen. On the fifth day after operation when all the symptoms were favorable she suddenly collapsed, pulse at the wrist disappeared and the respiration became labored. I ordered hot water-coil over the solar plexus and digitalin, strychnine, and small doses of morphine, hypodermically. She recovered after a tedious illness.

*Case V.*—Mrs. B., about September 15, 1893. Vaginal hysterectomy, at the Detroit Sanitarium. I wish to report this case more fully as it presents a point of special interest.

About a year previous to this operation she had an ovarian tumor removed. The other ovary and tube were so bound down by inflammatory adhesions, that the operator did not think it wise to attempt its removal, since the operation had already been a tedious one. Following this operation the pain in her head and back and across her abdomen continued; her malnutrition was marked. I found the endometrium degenerated and the cervix presenting the appearance of epithelioma. Guided by the fact that one ovary was gone, and the other was probably useless, I decided to remove the uterus. I did so without ligating a single vessel by dissecting beneath its areolar covering. I then endeavored to remove the remaining ovary, but it was fixed so high and the pelvis was so narrow that I failed. No clamps, forceps, or ligatures were used. The patient had no shock, pain, fever, nor increase in pulse-rate, and was taken home six days after the operation, where she was kept in bed ten days. That inflamed ovary is still in the abdomen, yet she says she is perfectly well. She had been constipated for fifteen years. Her bowels now move regularly. Nothing was done to the rectum. I burned the pathological part, the physiological is here. I will have her brought in that you may see a picture of good health. She has gained twenty-one pounds since the operation. She is apparently as feminine and shows as much affection for her people and for children as she did when she had pelvic organs. I attributed success in this case to the fact that no nerve tissue was ligated.

In contrast to this case, let me report briefly:

*Case VI.*—MRS. M., at Sanitarium, November 9, 1893. I endeavored to remove uterus by same method as in Case V. The uterus being large and very vascular, the dissection was tedious, as it was difficult to follow the surface of the uterine tissue. I entered the abdomen anteriorly and posteriorly and dissected up along the sides about four inches. Upon passing my hand into the abdomen posteriorly, I found very strong adhesions about two inches long, binding the fundus uteri to the promontory and crest of the sacrum, subinvolution being marked. These bands were formed after the removal, last March, of large abscesses, the pus of which lay in contact with both sides of the organ. I thought it unwise to dissect further, and therefore amputated the organ at the upper part of its cavity. While dissecting, I had accidentally opened the uterine artery on each side, and left a pair of forceps on each.

About twenty-four hours after the operation, the nurse telephoned that the patient's pulse was 160, and temperature 103.8. As soon as possible I put her upon the table and removed the forceps, which were locked upon some of the tissues in question, douched in large quantities of hot water, gave digitalin hypodermically, and whisky per stomach, returned her to bed, and placed the hot water-coil over the solar plexus. In five hours her temperature was 102.6, and pulse 150. Twenty-four hours later temperature was the same and pulse 126. Five days later temperature was 101, pulse 110. During the next week the pulse and temperature became normal. There were no sysptoms of peritonitis or sepsis at any time. While dressing the wound I found when I touched the tissue which had covered the upper part of the cervix, the patient would invariably complain of violent pain in the back.

*Case VII.*—MRS. L. I removed the uterus, ovaries and tubes February 2, 1894, per vaginam. No ligatures, forceps or clamps were used. Highest temperature, 99.6; lowest, 97.3. Highest pulse-rate, 128; lowest, 72 (pulse-rate during the week preceding operation, 101–126). Patient sat up at end of first week, and left the Sanitarium on February 15. It is now one month since operation. I will have her brought that you may see that she is well.

With limited opportunities for observation, I cannot hope to establish any fact, but I wish to elicit a general discussion of the subject.

The point at which the irritation originates may be in the stomach, the colon, in the bronchial mucous membrane explaining the profuse sweating and diarrhea of lobular pheumonia, explaining the extreme exhaustion following the grippe, in which case the irritating impulses may start from the whole mucous surface, overflowing the sympathetic ganglia into the cerebro-spinal centres. It may temporarily throw out of function the sympathetic centres, causing profuse outbursts of perspiration and in some cases complete prostration, or collapse. In short the irritation may originate in any part of the body, or in its environment, in the mind or in the social conditions which are a part of the mind.

The first effect of the transmission of messages from a pathological tissue to a distant tissue, is a constriction of the capillaries in that distant tissue followed by their dilatation, and hence congestion results, thus in mumps when the irritation is transferred from the salivary glands, to the testicles, we have swelling of the testicles with usually a subsidence of the swelling in the neck. When the swelling disappears suddenly from the neck, we find a profound general disturbance of the system sometimes collapse from the irritation passing to the peripheral ganglia everywhere. As the central ganglia in a measure get them under control, they pass out to the glandular tissue and swelling begins in the testicles or mammæ, and the general symptoms disappear.

It may be that the condition of the nutrition of a tissue determines the lodgement of these reflected irritations. Thus, the symptoms of a chronic arthritis subside with the onset of acute bronchitis.

One of the results of sympathetic irritation is mal-nutrition. It may be of the whole body, or of a part of the body distant from the point of irritation. Thus an ovarian tumor may cause an eczema of the nose. A nasal polypus or an internal hemorrhoid may produce asthma. Endometritis may produce cold hands and cold feet.

Various insects are found in illy nourished plants, varying in kind according to the tissue upon which they feed. Bacilli of varied species according to the tissue which they select as pabulum, are found in human beings, whose capillary circulation is defective. To this thought we may be compelled to turn for the successful treatment of tuberculosis.

As the rods and cones of the optic nerve receive impressions which, through that phase of the force called mind, controls the action of the cells of the social body, so the rods and cones of the sympathetic nerve may receive impressions which go to control the action of some one or all of the cells of the physical body.

# A QUESTION OF DIAGNOSIS.

By J. BYRON NEWMAN, M. D., Detroit, Michigan.

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The following case out of many illustrates that it is not always wise to suggest to a neurotic woman the possibility of her having a grave lesion.

On July 12, 1893, I was called to attend Mrs. A., for a three months' abortion, which was supposed to be traumatic and due to her missing a step of the stairway. The woman left her bed earlier than the time prescribed, nevertheless she recovered and went about apparently as well as women usually do. On August 7 I was called again, in the morning, for chills, diarrhea, pain in the right iliac region, and vomiting. These symptoms commenced the previous evening, when waiting with her husband for a train, at the station, to go into the country, and caused her (alone) to return to her home.

When I saw her she had the McBurney, circumscribed, painful spot, about two and one-half inches above the iliac spine, in a line from said spine to the umbilicus. Her right knee was flexed on the abdomen and, on extending her right leg, there was pain in the line of the psoas muscle. The iliac pain was severe; the diarrhea was flatulent. Her temperature was 102° Fahrenheit. I attended the woman that day and subdued the violent symptoms.

Next day her husband arrived home and wished to know what was the trouble? I informed him that she had some indications of local inflammation, or an abscess, and, that if she did not recover soon, she might require an operation. From that day forth that woman had abscess on the brain; yet in five or six days she was around again, apparently as well as usual—but somewhat feeble and thin.

On October 1 I was called again. Her temperature, at this time, indicated very nearly 104° Fahrenheit. She had some distress in her bowels, but not localized, and she was full of hysteria—wanting to exaggerate her condition, insisting that there was a bag of pus there that required removal, and asserting by way of proof that marital congress left her husband raw and sore. On her informing me that she passed shreds and very offensive matter from her bowels, I requested an inspection, but she insisted that it was too offensive to keep. Having had, a short time previously, a case of diphtheric dysentery, due to ptomain infection, I was anxious to compare the two. MRS. A.'s sister, however, informed me of the reality of the offensive excreta.

DIAGNOSIS.—Previously to the third attack, MRS. A. had been living in a damp basement, surrounded by unhygienic environments. MRS. B., who had lived in the adjoining basement, died in Harper Hospital, of erysipelas. A few weeks after her death, I was called to attend MR. B., himself, for superficial erysipelas with some œdema; he recovered. Knowing these facts, I considered the third attack one of ptomain poisoning, and informed the woman and her husband that her affection, then, was infection and malarial fever; she insisted it was typhoid fever and abscess. I distinctly informed them that it was not typhoid fever; also that she would recover. The absence of all local, tender, foci excluded *appendicitis recurrens*, and any tumor constipation, oacites. The virtuous history of the woman would exclude pyo-salpingitis. During the second attack she might have had catarrhal salpingitis or appendicitis—although I myself, on account of the strongly marked symptoms, was inclined at that time to lean to the latter, notwithstanding the recent uterine trauma; but these cannot be always differentiated.

IN THE HANDS OF SPECIALISTS.—On the 4th of October MR. A.'s father and mother arrived from the country and decided to remove the patient to the hospital. Her temperature then was 102° Fahrenheit. The friends consulted me on the advisability of an operation. The patient being now in a healthy locality, I informed them she was better where she was, and that no operation was required. However, on arriving at the hospital, a surgeon, with a gynecologist, without an examination, informed the husband that this was not a case for general practitioners, that it was a suitable case for their hands, and their hands only; that there was a bag of pus there that required removal; that the temperature of 102° Fahrenheit indicated it. The surgeon, having left the case in the hands of the gynecologist, the latter operated at the end of a couple of weeks. He was confident of finding pus in the tubes, on account of the temperature. He removed the left ovary and tube, laid open the ovary, but could find no pus. He then removed the right ovary and tube, laid open the ovary, but could find no pus. Then the suggestion that a microscope might discover pus was made, and made only.

Through the kindness of the operator I was present at the operation, and, with others, recognized four or five cysts in each ovary, each varying in size from that of a pea to that of a white bean. The appendix was found to be normal, but I could perceive indications of a recent catarrhal salpingitis which, I have no doubt, caused the symptoms simulating those of appendicitis. Catarrhal salpingitis requires no operation, and, as there was no appendicitis, no operation was required.

The above case shows that caution, in our suggestions to neurotic females, is much better than hastiness. Of the hasty, sweeping, and blind diagnosis given by surgeons and gynecologists to laymen, I have nothing to say at present, except that I will leave such practice to the judgment of the profession. CATHEL states that the first diagnosis should be always sustained, if possible, before laymen, by specialists.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, NOVEMBER 6, 1893.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### REPORTS OF CASES.

**DOCTOR CARRIER**: I wish to report some cases, not for their peculiarity, but for the sake of eliciting information from some of the members. Last October I attended a child and at the time made a diagnosis of croup. After a few days the child recovered. Two weeks later it had another attack from which it also recovered. Some days later an older brother began to cough, and shortly after a third child was taken with a cough. The cases now are to be regarded as regular cases of whooping-cough. The question is how was I to have made a diagnosis in the first case, as no whoop was ever heard. I would like to hear if some of the members of the Society can inform me by what symptoms whooping-cough can be recognized in the absence of the characteristic whoop.

**DOCTOR J. B. NEWMAN**: I have had cases of whooping-cough without any whoop where I have made a diagnosis by the periodicity of the cough.

**DOCTOR CARSTENS**: I consider that we can have cases of whooping-cough without a whoop, just as we can have cases of scarlet fever without a rash. Mild cases where the cough is not distinctive would have to be diagnosed on general principles, taking into account the history and surroundings.

**DOCTOR WEBBER**: This is probably one of those cases where the power of intuition is so necessary.

**DOCTOR CARSTENS**: I wish to report a case which I think is very interesting and deserves to be placed on record. The patient was brought to Harper hospital, and upon examination was found to be suffering from carcinoma of the uterus. As the disease had progressed so far and had involved so much of the surrounding tissue, it was decided that no operation would be of any avail. However, as a temporary expedient, the uterus was curetted and the ulcerated parts cauterized with chloride of zinc. The patient got along very nicely for three or four days. Then the nurse reported that she had not passed any urine for twenty-four hours. A dose of Hunjadi water was administered, but forty-eight hours passed without any flow. The patient was placed in a steam bath and sweet spirits of nitre were given internally. After seventy-two hours had elapsed and still no passage of urine, I thought the case might be one of hysterical suppression. The fifth, sixth and seventh days passed without the appearance of any untoward symptoms; all this time the patient was sitting up and eating as usual. On the ninth day she began to be a little flighty. As there had now been complete suppression for so long a time, the catheter showing that there was no urine in the bladder, I considered the case as one of mechanical obstruction of the ureters. The patient now became comatose and delirious, and twelve days from the time the suppression began she died. The autopsy showed that the ureters had been obstructed by the new growth just above their entrance into the bladder. The ureters were dilated, as were also both kidneys, about eight ounces of urine being found in the two. At no time did the patient complain of any pain, nor could any enlargement of the kidneys be made out on manipulation.

**Doctor Carrier**: Last fall I was called to see a man who had been fishing, and complained of having caught cold. There was pain in the back, general muscular soreness, no elevation of temperature, no history of an initial chill. The second day he felt better; on inquiry about the state of the kidneys, he said that he was passing his water as usual. After the lapse of four or five days, as he was anxious to leave the city, I gave him my permission to go away. On his way to the train he was taken with sudden blindness, and died a short time afterward at London. The autopsy revealed that the man had suffered from Bright's disease.

**Doctor Flintermann**: The diagnosis in such cases is very difficult, and we should be on our guard against such cases. In a case to which I was called not very long ago, the diagnosis of cerebral tumor had been made by the attending physician. The history of the case was quite obscure; the patient complained of tenderness over the right parietal region. The operation of trephining was talked of and had almost been decided upon, when an examination of the urine showed blood and casts present. Very often the coma of diabetes simulates uremic poisoning. In the diagnosis of Bright's disease the careful examination of the character of the pulse, with attention to the accentuation of the second sound of the heart, is often useful. In a case which I saw a few days ago, the disease had run a very insidious course. The woman had been in apparently good health, when she was taken with a pain in the stomach, followed by vomiting. She soon became unconscious, and was found on the floor in a state of coma. Death ensued and an autopsy revealed the fact that the kidneys had undergone granular degeneration.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, NOVEMBER 13, 1893.

The President, JOHN FLINTERMANN, M. D., In the Chair.

### EXHIBITION OF SPECIMENS.

**Doctor Longyear** exhibited a specimen of a uterus removed for malignancy of the fundus, where he had operated and had performed a vaginal hysterectomy.

**Doctor Carstens** exhibited a specimen of two hundred and thirty gall-stones removed from one patient by operation. The patient had been subject to attacks of gall-stone colic for eight years, and had required the frequent administration of anodynes. For three months previous to the operation the attacks had recurred every two weeks. After the gall-bladder had been incised some difficulty was experienced in removing the calculi. Accordingly water was injected and it was then found that the stones floated up and were easily removed.

**Doctor Walker** reported a similar case and exhibited three large gall-stones removed by operation from a patient who had been jaundiced for a long time, and who had frequent recurring paroxysms of pain. After the operation the patient had got along very nicely until a short time before when she began to vomit blood and to manifest symptoms of such a grave character that a secondary operation had been performed the previous Saturday, when on opening the abdominal cavity unmistakable evidences of malignancy were found, with involvment of the stomach.

**Doctor Longyear** considered that while in these cases operation was indicated and perfectly justifiable, yet, in those cases which had come under his care, he had noted very beneficial results from the administration of large doses of phosphate of soda for a considerable period of time.

**Doctor Donald** reported a case of appendicitis: J. F., aged thirty-six, American, white, and a sailor by occupation, entered the United States Marine Hospital, of Detroit, October 28, 1893, with the following history: Three days previous, after exposure to the weather for a number of hours, he had a chill, followed by a fever of moderate severity. Since then he has been feeling sick and out of sorts; complains now of slight pain over abdomen; tongue is coated slightly, bowels moderately constipated. Temperature, 102; pulse, 102. Diagnosis reserved. The following morning I saw him for the first time and found his temperature about 99½; pulse, 86. Had had a severe chill at 1 A. M. Slight tenderness now over whole abdomen, but nothing pointing especially toward disease of the appendix, except the range of temperature with recurring chills. There was no swelling in the right iliac fossa, and no special tenderness located there. A diagnosis of suspected appendicitis was made, and as pains in abdomen became more severe he was put upon small doses of morphine, with turpentine stupes internally. Was better in the evening, but during the night had a severe epileptic seizure, to which it seems he is subject. On the 30th, three days after admission, he felt quite comfortable, took liquid diet, rested quietly. Temperature 101.2; pulse, 90. On the 31st, about the same. During the night, however, he had a severe chill. Temperature dropped to 95, and pulse went up to 130. Abdomen became rapidly distended. The day following I operated. On entering the abdomen a quantity of fetid pus welled up through the incision, and the intestines were found matted together throughout their whole extent.

The abdomen was thoroughly flushed with sterilized water, and an effort was made to reach the appendix, but owing to the matted condition of the intestines and the collapsed condition of the patient, the effort had to be abandoned. He died about six hours afterward. The autopsy revealed a large amount of pus concealed in pockets, due to adhesions; strong adhesive bands of lymph throughout the intestinal tract and a perforating ulcer the size of a nickel, in the vermiform appendix. An intestinal concretion was also found in it. Two points of interest present themselves to me: First, the vagueness of the symptoms in this case, from the admission of the patient till within twenty-four hours of his death. There was nothing, so far as I could see, that would lead one to insist upon the necessity of an operation, and yet an early operation would have increased his chances of recovery materially. The second point is the rapidity with which the adhesions in the bowels sprang up—adhesions so strong that at the autopsy several tears into the lumen of the gut were made in endeavoring to separate the folds of intestine. To me this case pleads powerfully for a more thorough study of the conditions in lesions about the appendix when operation is demanded, and when delay is not criminal.

Doctor McGraw thought the case just reported very interesting and instructive. No line of cases demand such prompt interference as cases of appendicitis. He considered also that it was very imperative to distinguish the kind of cases with which we had to deal. If there was tumor perceptible to external palpitation, it was a sign that the inflammatory process was walled in, and the indications for operation were not so urgent. It was in cases where there was no tumor that an operation was demanded, if the diagnosis of appendicitis had been made.

Doctor Carstens related a case where he had been called in to see a man where a diagnosis of appendicitis had been made; there was no tumor present in this case. He had operated and found the large intestine turned upon itself. There were three perforations of the gut which he had sewed up. The appendix was found lying in a little pool of pus. The patient had died next day. In his opinion all cases where there was no tumor should be operated on as soon as the diagnosis was made.

Doctor Walker stated that, while he had formerly believed that one out of every seven cases of appendicitis die unless operated on, he now believed that one out of every three cases died unless they had surgical help.

Doctor Carstens raised the inquiry as to whether appendicitis were not more prevalent now than formerly, and whether it might not be due to a specific microbe.

Doctor Sampson thought the last statement of the doctor a very suggestive one, and quoted two epidemics of appendicitis which had occurred in two small Canadian towns, where the number of cases seemed to thoroughly preclude any idea of coincidence.

Doctor McGraw exhibited a specimen of the ulnar nerve removed in a resection. The history of the case was as follows: A week previous a boy had been shot through the arm. The wound had been dressed antiseptically by the attending physician. After a day or so the boy had developed trismus and tetanus. Upon being called in consultation, he found a hole just below the elbow, the ulnar nerve severed, and a pocket of pus extending up to the shoulder. He had dissected out a portion of the ulnar nerve and drained the abscess. Since seeing the case he had heard no reports as to how it was getting along. The question in such cases was how much good a local operation does. If we have infection of the spinal cord, it is doubtful if the operation would be of any value. However, in the absence of any positive knowledge on the subject, it would seem better to perform a local operation.

**Doctor Carstens** considered that a local operation was indicated in all such cases. The question was how much had been already absorbed. It would be neglect if we do not thoroughly cleanse the wound.

**Doctor Walker** thought that, as it was pretty well proven that there was a bacillus of tetanus, the rational treatment was irrigation and drainage, and the prevention of further infection.

## DISCUSSION OF PAPERS.

**Doctor G. L. Kiefer** read a paper on "The Uses and Dangers of Anesthetics." (See January issue of The Physician and Surgeon.)

**Doctor Tappey** considered that the principal danger in anesthesia arose from the manner in which it is administered. Some believed that irritation from the chloroform on the Schneiderian membrane has caused fatal syncope. The method which seemed to be safest was where the chloroform was administered in drop doses. In a total of ninety-one cases complete anesthesia had been induced in an average of three minutes, with an average quantity of three drachms of chloroform. The smaller the quantity used the less danger. Twelve drops a minute should be administered on a folded napkin until complete insensibility, the anesthesia being continued by the administration of four to six drops a minute. With this method the results are much better than with the old way of pouring on a large quantity at a time. Proper care has a great deal to do with the safety of an anesthetic. The operation should never be commenced before complete anesthesia had been reached, as patients have died from the shock of the first incision, even where no drug has been used. It is my opinion that chloroform should be the usual drug for anesthesia.

**Doctor Carstens**: In my opinion the risk run in the administration of chloroform is far more serious than when ether is given. Statistics show that one death ensues in every ten thousand cases of ether anesthesia, while one death occurs with every fifteen hundred cases of chloroform narcosis. Ether has been accused of causing renal trouble; this I was formerly inclined to believe, but I am inclined to doubt it at present. In one hundred and fifty operations where chloroform was used in my experience during the last year, three cases occurred of absolute suppression of the urine. In these cases I am convinced that the renal trouble had its origin in the long continued sepsis previous to the operation. It would seem that the one anesthetic was as injurious as the other to the kidneys. Chloroform is a particularly dangerous drug in the dentist's chair; here two factors play an all-important part—(1) the position of the patient, and (2) the skill of the anesthetizer. The preliminaries of the operation can be done while the patient is taking the anesthetic. The saving of time which is thus obtained is very important for the patient, as one who is under an anesthetic for fifteen minutes is exposed to less danger than one who is under the influence for a much longer time.

**Doctor Longyear**: I agree with the ideas advanced by the author of the paper. The administration of an anesthetic has almost all to do with the danger, whether it be ether or chloroform. Ether is an irritant to the kidneys. I recall a case where the patient died on the sixth day after an operation where ether had been used. On autopsy the kidneys were found to be engorged; there had been complete suppression of urine. The most careful microscopical and chemical examination of the urine before the operation failed to reveal any kidney complication. Deaths from chloroform occur on the operating table; deaths from ether occur afterward in the wards.

DOCTOR COLLINS: I agree with this last statement of DOCTOR LONGYEAR. If the statistics regarding deaths from anesthetics could be made to include those occurring five days afterward the conclusions would be very different than what they are. By the administration of chloroform in drop doses we easily supply the requisite amount of oxygen. In regard to the number of drops a minute it is impossible to make any fixed rule, as the dose would vary with the individual case, the dose for a chronic alcoholic would not be in proportion to that of a child.

DOCTOR HITCHCOCK: The constant watching of the respiration is of cardinal importance in the administration of chloroform.

DOCTOR FROTHINGHAM: The point most important in the administration of an anesthetic is that the person giving it should thoroughly understand the action of the drug, and should give his whole attention to it. I dread the dangers from the anesthetic more than those which arise from the operation proper. It is always safest to have the services of a skilled anesthetizer. He should be constantly on the watch for the first symptoms of trouble both of the pulse and of the respiration. Complete anesthesia should be reached before the operation is commenced. DOCTOR PANCOAST was operating for a stiffness of the finger, the patient not being but partially under the influence of the anesthetic, when death occurred. There is no question that ether is the safer anesthetic. In one hundred and nine thousand cases there was one death, in twenty-seven hundred cases where chloroform was administered, and only one death from two hundred and thirty thousand cases where ether was used.

DOCTOR MINER: I would like to ask the opinion of the members of the Society upon the use of an anesthetic in cases requiring operation where there is a renal or heart complication. I had a case of membranous diphtheria in a child six years old, affected with a mitral regurgitation and some dilatation. The question was a difficult one; the patient was cyanotic and demanded rapid tracheotomy. No effects were produced by a local hypodermic of cocaine. The patient was given a hypodermic of whisky and digitalin, anesthetized with the ACE mixture, operated upon and recovered. Is it best in such cases to take the risk; or, are there any precautions which should be observed other than those which I have mentioned?

DOCTOR FROTHINGHAM: Such a case calls for more than ordinary attention to the giving of the anesthetic, but if the operation is demanded by the exigencies of the case, the operator should proceed.

DOCTOR EMERSON: I call to mind a case of chloroform narcosis where the house physician in one of our hospitals gave the anesthetic for a dentist who wished to pull a tooth. The respiration ceased but the pulse could be felt at the wrist. Artificial respiration was employed and the faradic current was also made use of. The patient lived for five hours, during which time whenever the battery was discontinued the respiration would cease; the heart's action continued up to the time of her death. P. M. Hickey, M. D., Secretary.

## STATED MEETING, JANUARY 22, 1894.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### DISCUSSION UPON RHEUMATISM.

**Doctor Tibbals**: Among the various theories which have been advanced to explain the etiology of rheumatism the lactic acid theory is the best known, and one which formerly had the widest acceptance. This theory was to the effect that there was at certain times occurring under various conditions either an over-production or an under-elimination of lactic acid rendering the normal alkaline reaction of the blood acid. This theory, however fascinating it may at first appear, has not stood the test of time, and is now believed in but by few. Little doubt now exists in the minds of those who have given the most consideration to this subject, that rheumatism is caused either by a microörganism or by a ptomaine. Whatever may be the real nature of the causative poison it has a predilection for sero-fibrous membranes. The poison is selective also as regards the organs of the body, the heart and joints being principally affected. Rheumatism is divided into acute and chronic. As you are all familiar with the symptoms I will spare you the detailing of them. The treatment is the important part and the one in which we are most interested; concerning this much has been written. Geroux, I believe, recommended colored water, believing it as efficacious as anything of which he knew. The alkaline treatment was in vogue for a considerable length of time, being successful in some cases and unsuccessful in others. The treatment with the salicylates is the one now generally adopted. In spite of the use of these drugs, cutting short as they often do the severity of the attacks, secondary complications are still frequent. It is estimated that thirty per cent. of acute cases are followed by heart complications. In the treatment of chronic rheumatism nothing is efficacious. Drugs acting on the kidneys thus promoting elimination are often beneficial. In general, tonic treatment is the most reliable.

**Doctor Douglas**: I feel that I am here to-night as a student; I have nothing to offer which is different from the teaching of recognized therapeutics. The observation and care of a large number of cases always produces a general impression upon an individual. In the olden times the favorite prescription was that of Doctor Abernethy—six weeks. As compared with our former experiences it is a very pleasant thing now to be able to handle a case of acute rheumatism with the salicylate treatment. In my first cases which occurred years ago, patients were sick for a long time and finally recovered with more or less deformity. At the present time rheumatism is considered as a factor in the etiology of many diseases. Pleuritis, cerebral troubles, some forms of tonsilitis have, according to some authorities, a rheumatic origin. Thus far all discussion has resulted in the advocacy of the salicylate treatment. Personally, I have had no experience with quinsy as a rheumatic affection. If no results are obtained from treatment with salicylates in from three to four days, it is of no advantage to continue the treatment with those drugs. It is better to try something else, and return to the salicylates after the lapse of a few days. Treatment with the salicylates should be aided by rational treatment suggested by a careful study of each case. Especially is this true in the subacute cases where a careful study leads to a wide range of treatment. The milder types of arthritic irritation, in anemic cases, are partially benefited by salicylates; these cases generally improve more rapidly under iron, particularly during the administration of tincture of iron chloride. In appropriate cases I am accustomed to rely on this preparation alone. In a case which came under my hands a short time ago, where there was swelling of the joints, attended with pain upon movement and acid perspiration, there was no amelioration of the distressing symptoms under the exhibition of the salicylates. The neuralgic character of the attack was broken up by the administration of the salts of quinine. The patient's general health was built up in a couple of weeks by tincture of iron chloride. In regard to chronic cases where there is change in the tissues, limitation of motion, impairment of the muscles, little benefit is to be expected or obtained from treatment.

**Doctor Sherrill**: In considering this question of rheumatism, there is an advantage in separating our patients into three groups: (1) those that are anemic, benefited by iron; (2) those who are robust and muscular, benefited by the salicylates; (3) those who have an overabundance of flesh, benefited by the alkalies. In reference to the connection between quinsy and rheumatism, I recall at the present time two or three cases where the patients at one time suffered from throat trouble, and at another time from rheumatism, the same cause evidently producing the diverse symptoms. In such cases of throat troubles I am in the habit of giving guaiacum, one drachm of the tincture in half a glass of milk, gargle and swallow. The lozenge—lozenges of guaiac are a very convenient way of administering this remedy. The steam spray, using Dobell's solution in the atomizer, is a useful adjunct in this trouble. I am convinced that we, as practitioners, are to be very careful in the diagnosis of children's diseases, especially as the subject is attended with such inherent difficulties. The suggestion which I have to offer in this connection is that we should watch for tonsilitis in children in order that by appropriate treatment we prevent the tendency to rheumatic affections. In reflecting upon the etiology of rheumatism there is ground for believing that the trouble might be referred back to digestive disorders, or to trouble in the liver. In the treatment of pain in rheumatism it is often advisable to paint the affected joints with Churchill's tincture of iodine and then envelope the part in cotton; this often affords marked relief, especially in the milder types.

**Doctor Tappey**: It appears to me that we are in the habit of calling several different diseases rheumatism. Personally, I have never been able to make up my mind that acute articular rheumatism is due to the same cause as muscular rheumatism; nor that these two are to be considered similar etiologically with the disease where we have deposits of lime salts in the joints. One of the first steps is to make an accurate diagnosis, and we shall then be in a better position to make up our minds in regard to treatment.

**Doctor Carstens**: I had supposed that Haviland's theories about lactic acid being the cause of rheumatism was still the most universally adopted. In dispensary practice nitro-hydrochloric acid, together with the administration of iron, has proved in my experience very beneficial for chronic cases. I have given one drachm of the tincture ferri chloridi with glycerine every two hours. Inhalations of oxygen are often beneficial. Neuralgic pains in malarial toxemia are quickly relieved by quinine. After an attack of acute rheumatism patients should not be allowed to get upon their feet too early. The best and safest principle to follow is rest in bed for two or three weeks after the disappearance of all symptoms.

DOCTOR DOUGLAS: The most annoying of all rheumatic types to handle is the muscular. Here our various lines of treatment seem to be of little avail. However, I was called to see a case last week where the administration of gelsemium was followed by a very speedy recovery.

DOCTOR LONGYEAR: I have thought that muscular and acute articular rheumatism were identical in their causes; in both we find the urine loaded with urates. Salol with phenacetin in full doses has proved in my experience quite beneficial. Many of the local pelvic troubles of women have their origin in a rheumatic diathesis. Cases of dysmenorrhea, where there is a rheumatic history in the family are often benefited by antirheumatic treatment.

DOCTOR DWYER: In my experience gelsemium has proved of little or no value.

DOCTOR HENRY: I consider the matter of sanitary surroundings as a very important determining factor in the etiology of rheumatism. Sewer gas especially I believe to be an important cause.

DOCTOR J. BYRON NEWMAN: It is generally conceded that rheumatism is caused by a microörganism circulating in the blood. The pyrexia would indicate an infection of the blood. No specific germ has, up to this time, been isolated. It is an interesting clinical fact that laboring men are more prone than any other class to attacks of rheumatism. It is natural to infer that the nervous system is implicated in rheumatism; a man is exposed to a storm, his clothing is thoroughly drenched, and the next day he is down with rheumatism. It is evident that the peripheral nerves are more or less paralyzed. The blood is impeded in the capillaries; the development of the microörganisms may be the cause of the capillary stasis. The blood becomes saturated with their products, and they thus are conveyed to the joints and to the heart. For the relief of the pain we may make use of morphine and hot fomentations. I think that the alkalies should be used in preference to the salicylates. Heart complications are to be avoided by the maintenance of a uniform temperature, the patient being wrapped in blankets.

DOCTOR FLINTERMANN: I am somewhat surprised that the relation of rheumatism to insanity and nervous diseases has not yet been touched upon by any of the previous speakers. It is certainly a very important relation. If a case supposed to be rheumatism does respond to treatment by the salicylates, it speaks against the diagnosis. The diagnosis of rheumatism is not always easy, as the disease may begin differently from the classical symptons of the text-books. A short time ago I had a patient, a young girl, fifteen years of age, whose first symptom was hematuria; here the joint symptoms appeared only after the lapse of a few days. We often see cases where pain in the heart, as a primal symptom, would indicate that the rheumatic trouble began in the heart, with subsequent extension to the joints. A case which came under my observation some time ago would illustrate the point. There was severe pain in cardiac region, with joint trouble developing two weeks later. Hemiplegia resulted; the autopsy showed an endocarditis as the first trouble. Muscular pains are often present in syphilis, while tuberculous patients frequently complain of rheumatic pains, due to the development of the tubercular poison, in the joints. In chronic muscular rheumatism the best results are obtained from warm baths, massage, and electricity, with the most careful attention to sanitary conditions of living. Many cases called muscular rheumatism, and sent to the mineral springs on that account, are really cases of beginning locomotor ataxia.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, MARCH 5, 1894.

In the Absence of the President, J. E. EMERSON, M. D., in the Chair.

### DISCUSSION OF PAPERS.

**Doctor Metcalf** read a paper entitled, "The Sympathetic Nervous System."

**Doctor Longyear:** I wish that the neurologist had been called on first to discuss this subject as my own ideas on the same are somewhat indefinite. I think that as a Society we are indebted to Doctor Metcalf; we are accustomed to consider the sympathetic nervous system in an indefinite way and it is well to consider the question in a definite way as the doctor has done. The case in which I was particularly interested was the first one which the doctor cited. The problem of there existing an affection of the nervous system was considered before the operation; the rapid pulse being a symptom which was referred to this condition. I hoped that removal of the tumor and the consequent relief from the pressure would better the condition of the nervous system. The pulse improved under the anesthetic but became worse after the completion of the operation. It seems to me that the point about the connection between the sympathetic nervous system and the cervix uteri is a very important one. It is not alone in surgical cases that we see affections of the sympathetic nervous system; they are to be seen in the actions of certain drugs. In a case of laparotomy at Harper Hospital two years ago, morphine acted very badly. After the operation, as the patient was in considerable pain, one-tenth grain of morphine was given hypodermically. This was followed by weakness of the pulse. The condition was supposed to be due to shock and stimulus was administered. The pain still continuing, the dose of morphine was repeated. This was followed the second time by circulatory disturbances. Under appropriate treatment the patient rallied and ultimately entirely recovered. The peculiar effect of the drug in this case might be due, in my opinion, to a peculiarity of the make-up of the sympathetic system. I hope that the points which Doctor Metcalf has made in his paper can be worked out to the practical benefit of the members of the profession.

**Doctor Hitchcock:** While not wishing to quibble over the matter, I must take issue with the doctor's thesis that there is only one force in nature, and that as there are no diseases of electricity, there can be no diseases of mind. However, granting for the sake of argument the truth of the statement of Doctor Metcalf in this question, what is the benefit therapeutically, or what real advance have we made? I had hoped that the doctor would have given us some suggestions in the line of treatment.

**Doctor Emerson**: I must congratulate the essayist of the evening for the thought and originality displayed. I have been much interested, not only on account of the cases recounted but also because his theory coincides with a theory of my own formulated from clinical observation. The theory is that the sympathetic system is a subsidary system allied most closely to the cerebro-spinal system. The connection between the two systems is a most intimate one. The distribution of the sympathetic system is as wide as possible and its functions are as wide as its distribution. It might be compared to the commissary system in the army. Wherever the army goes, there goes the commissary. Unless the commissary is maintained, the army is helpless. I believe that the cerebro-spinal system is, if I may be allowed the use of the expression, the originating part of the nervous system, where the vital impulses are generated. The sympathetic system acts as a coördinate and regulating part. In hearing the paper this evening I was reminded of the pamphlet published some years ago by Doctor Buck on the "Sympathetic Nervous System." In that treatise the author advances the theory formed by a process of exclusion and negation that the sympathetic system has to do solely with the emotional part of our nature. There are certain grounds for this conclusion. Certain emotions are very markedly controlled by the action of the sympathetic system. It is a matter of some surprise to me to note how little space our leading text-books devote to this subject.

**Doctor Miner**: I have learned to be very deferential to the sympathetic nervous system during the last few years of my practice. The action of certain drugs upon the nervous system is the basis of homeopathy. In this, our brothers of the opposite faith have been very far-sighted. Most of the remedial agents used by the homeopaths have a selective action on the sympathetic nervous system. The mucous membranes of the respiratory organs are supplied with capillaries governed by vaso-motor nerves. Congestion may occur as the result of vaso-motor paresis. We have the clinical observations that cases of asthma, hay fever, chronic rhinitis, et cetera, are caused by chronic irritation of the sympathetic nervous system with the consequent influence on the vaso-motor nerves. Many of the cases are to be treated by general tonics. Asthma has been caused by a laceration of the cervix uteri where an operation on the cervix was successful in removing the respiratory trouble. I believe that congestion of these membranes may be caused by irritations from any part of the body. It is well known that nasal polypi may cause asthma. I have seen at least twenty-five cases where the removal of a polypus from the nose has cured the asthma. Ovarian irritation has caused talipes where surgical measures for the ovary have removed the foot trouble. In the next ten or fifteen years, in all probability, the sympathetic nervous system with its disorders and treatment will be classed as a speciality.

**Doctor Sampson**: I think that this is the most important paper which I have heard read before this Society. I am astonished to find that some of the members know as little about the subject as I do. In connection with this subject I have been most interested in a paper recently published detailing the the reports of six or eight cases of progressive neuritis. The cases steadily grew worse and death came very suddenly in each one. Careful dissections of the lesions showed that the neuritis passed along to the spinal centres with involvement of the splanchnics which govern the heart. There is no doubt that there is no field in the domain of medicine which offers richer returns for scientific investigation than does the sympathetic nervous system.

DOCTOR IVES: The only point which I can offer on this subject is to propound the inquiry which has so often suggested itself to my mind. Why the sympathetic nervous system is without the covering which we find about the nerve fibres of the other nervous system? It may be that the white substance of Schwann is an extra insulation which is not needed for the sympathetic system.

DOCTOR METCALF: Perhaps the patient DOCTOR LONGYEAR refers to was at the time in a condition bordering upon shock and the additional depressing effects of the one-tenth grain of morphine upon the terminal ganglia caused a general dilatation of the blood vessels, thus reducing blood pressure, accounting for the peculiar action of the heart. In answer to DOCTOR HITCHCOCK I may say that my endeavor has been to read unity into the functions of the nerve systems. The parts of any science are developed independently of each other but they are only fully understood when we have the full development of the science. By way of illustration, take a simple example in addition: two and three are five; "two and three" has no meaning until the value of "five" is comprehended. The tool of unity is necessary to the translation of cases. It is indispensable to me. The theory was not founded upon the cases reported, but upon numerous and varied cases; upon my experience for years; these cases being selected because the original idea of the paper was to report the case operated upon by DOCTOR LONGYEAR. I would like to know DOCTOR EMERSON's reason for thinking that the force originates in the cerebro-spinal system. In referring to DOCTOR BUCK's article mentioned by DOCTOR EMERSON in which he (DOCTOR BUCK) speaks of the sympathetic as the system of the emotions, I wish to say that I understand emotion to be a term applied to the mind when it is out of motion or incapable of moving round to will a definite related action; but the cerebro-spinal system is primarily involved in every movement of the mind. Of course, when the mind is out of motion or has lost direction it may overflow into the centres of the sympathetic system and cause blushing, changed heart action (as occurred on Seventeenth Street last week when a lady died instantly upon the receipt of bad news), diarrhea, micturition and various other manifestations of a disturbed sympathetic or like force; while on the other hand an irritation to the sympathetic may overflow into the cerebro-spinal channels thereby becoming an obstruction to the mind and resulting in the production of emotion. The sympathetic nerve fibre is not exposed to the frictions which endanger the cerebro-spinal fibres; they, therefore, do not need the protection of the primitive sheath. I thank DOCTOR MINER for his remarks which go to support the thought I have endeavored to express. I do not, however, agree with him that further study of the sympathetic nervous system will tend to diminish the use of surgical measures. I am convinced that it will increase the frequency of surgical procedure. I thank DOCTOR SAMPSON for his, it may be flattering, though encouraging, remarks. If this is a dream as the doctor calls it, it is a day dream and has influenced my practice for several years.

P. M. HICKEY, M. D., Secretary.

# CORRESPONDENCE.

## DRESDEN LETTER.

BY COLLINS H. JOHNSTON, A. M., M. D., GRAND RAPIDS, MICHIGAN.

VISITING PHYSICIAN TO SAINT MARK'S HOSPITAL, GRAND RAPIDS, MICHIGAN; EXTERNE OF THE ROYAL FRAUENKLINIK, DRESDEN, GERMANY.

### FOURTH PAPER.

### APPENDICITIS NOT AN AMERICAN DISEASE.

THE leading authority in Berlin upon appendicitis is PROFESSOR E. SONNENBURG, with whom, along with five other American doctors, I had a valuable course in abdominal surgery upon .the cadaver during the month of December. Until recently appendicitis was considered to be largely an American disease, due to our national habit of rapid eating, which is so frequently accompanied by indigestion, constipation, and accumulation of feces in the cecum, the latter causing in many cases catarrh of the cecum and appendix. LANGE, of New York, was an assistant to ESMARCH, of Kiel, for many years and says that during that time appendicitis was almost unknown at that celebrated surgeon's clinic. I believe, however, that the disease is as common here as at home. SONNENBURG meets it almost every week, and has operated upon eighty cases. But the German medical profession as a whole, has not yet become convinced of the frequency of the disease, and I was assured by a prominent Berlin gynecologist that the only indication SONNENBURG needed for removing an appendix was the possession of one on the part of a patient. Soon afterwards I saw that same gynecologist operate upon a case in which he had diagnosed pus tubes. He found to his surprise a perforated appendix with an abscess. I was accordingly quite surprised to find that SONNENBURG is much more conservative in his treatment of this class of cases than many American surgeons. Of his eighty operations, but three were made before the patient presented symptoms of an abscess. He believes that early operations such as are advocated by many American surgeons, that is, operations before perforation of the appendix, or the formation of an abscess, are unpracticable, because of the great difficulty of making a correct diagnosis before induration or swelling is present. He says that it is clinically impossible to diagnose catarrhal appendicitis; but if this passes on to ulceration, perforation and local peritonitis, the diagnosis can be easily made, for the clinical symptoms are thus very clear and typical.

If a patient is seized with severe pain, sometimes diffused over the whole abdomen, but sooner or later becoming concentrated in the right iliac fossa; if this is attended with fever, sometimes moderate, sometimes high, and vomiting with diarrhea, or occasional constipation; if the belly becomes disturbed, and dullness or induration are found in the right iliac region, a diagnosis of localized peritonitis, caused by perforation of the appendix, is made. The diagnosis is all the more likely to be correct if we find that the patient has suffered at times without particular cause from colicky pains in the right side of the abdomen, signs which may safely be referred to a pre-existing ulceration process in the appendix. The disease can be differentiated from typhlitis stercoralis by the fecal tumor present in the latter, which is painless in the beginning of the disease, and which does not cause much fever, even when attended by exudation.

Moreover, typhlitis is much less common than appendicitis, and seldom ends in suppuration.

### THE INDICATIONS FOR SURGICAL TREATMENT.

**Sonnenburg** thinks that surgical treatment is indicated in EVERY CASE of local peritonitis caused by perforations of the appendix, as suppurative degenerations *always* accompany such a process; and if he finds a painful exudate accompanied by the above named symptoms with high fever, he considers an operation to be strongly indicated. He believes a high temperature in perityphlitis *always* indicates a purulent process, and he has found pus present in twenty-four hours after the onset of the symptoms.

There can be no doubt that a good many cases of perityphlitic abscess perforate into the intestine; the pus is discharged with the feces, and if present only in small quantities, is entirely overlooked by the patient. If the communication between the abscess and the intestinal tract is a broad one, a temporary or even permanent cure may result. If, on the other hand, the opening is small, further degeneration changes may take place resulting in sepsis and the patient's death. In exceptional cases, the liquid portions of the abscess may be absorbed, and nothing but a fecal calculus surrounded by exudates remains. But we must remember that a patient with a perityphlitic abscess is in danger of having the adhesions about it rupture at any time, and the contents discharged into the peritoneal cavity. The prognosis as to the course of the disease is extremely uncertain. **Sonnenburg** believes that in EVERY case of perityphlitis in which a painful exudation has developed with the characteristic symptoms mentioned, the exudate consists of pus, the result of perforation of the appendix. He, therefore, advises an operation without hesitation, and the absence of the general symptoms of pus formation such as chills, fluctuation, et cetera, should not deter one from operating even as early as the second day. He has used the **McBurney** incision a few times, but finds the one generally used for ligating the common iliac artery enables him to reach an abscess better and with less danger of opening the peritoneal cavity. It is made as near the crest of the ilium as possible beginning a little above the anterior superior spine, and running along **Poupart's** ligament to about its middle. By means of this incision, the abscess can usually be reached in whatever position it may be situated, especially when located back of the ilium or cecum, which is the most common location of the appendix. The opening made is always a large one, and the appendix itself is removed when possible. The after treatment is very simple, and consists of tamponing the cavity with iodoform gauze until the wound has healed.

### AN ILLUSTRATIVE CASE.

To illustrate the careful and conservative manner in which **Sonnenburg** handles these cases, I will mention that of a girl fourteen years old who was in her usual health until December 15, 1893, when she was seized with severe pain in the right iliac region which was made worse by a dose of castor oil given to her by her parents. On the 18th, her physician discovered dullness on percussion and a slight sense of resistance in that region. On the 19th, when he first saw her, her temperature was 105°, pulse 120 and very weak, and pressure was painful all over the abdomen which was so tympanitic that no especial induration could be discovered on the right side. **Sonnenburg** diagnosed peritonitis, probably from a perforated appendix, and proceeded to operate. In raising the peritoneum from the iliac muscles it was opened accidentally for about one-half inch but immediately closed with catgut, which he uses in all abdominal operations. A most careful examination with the fingers through the peritoneum failed to find any pus or localized swelling, so the peritoneal cavity was not opened. The appendix was felt, and thought not to be enlarged. The girl died on the second day after the operation. The post-mortem showed general septic peritonitis, with large amounts of pus and plastic exudate, which was most abundant in the cecal regions, but the appendix was perfectly normal. Sonnenburg thought the trouble arose from a small perforation in the cecum which had become closed. Such small perforations of the bowel, which are afterwards closed by plastic exudates, he said are often the cause of general septic peritonitis, for which no cause can be discovered at an autopsy.

## THE STUDY OF OBSTETRICS IN DRESDEN.

Until the present century the French maintained the leading rôle in obstetrics, both as writers and practitioners, and the first lying-in hospital was erected in Paris in the year 1720. Similar institutions were in time established in various cities of Germany, and during the last one hundred years Germany has produced many of the most distinguished obstetricians of the age. The Royal Frauenklinik at Dresden was founded in 1815, and has long been one of Europe's most famous lying-in hospitals. Its director for the last ten years has been G. Leopold who recently celebrated on the same day his tenth anniversary here and his one thousandth laparotomy. Leopold studied medicine in Vienna in 1871 with Paul F. Mundt, of New York. Before coming to Dresden, he was for many years private docent in the University at Leipsic, where his father-in-law, Credic, who died in 1892, was professor of obstetrics, and gynecology. His predecessor here was Winckel who left to become professor in the University at Munich, and whose excellent work on obstetrics has become known to so many American physicians through the translation of Parvin, of Philadelphia.

The advantages for the study of obstetrics are perhaps better here than in any other German city, for several reasons. The material is abundant. Last year there were 1670 births in the hospital, which has 120 beds, and 500 in the out-door department. Rachitis is very common in Germany, but especially so in Saxony, and from twenty per cent. to twenty-five per cent. of the women confined in the hospital, four-fifths of whom by the way are unmarried, have contracted pelves. Abnormal labors are, therefore, quite frequent. There being no university in Dresden, the Government allows Leopold to take a number of students in the form of volunteer assistants, whose terms of service last four months. One can, of course, remain a shorter time if he so desires. Four times a year the four regular assistants, who are salaried men, give four courses, one each in microscopy of the female genital organs. External examination of pregnant and parturient women, gynecological and obstetrical operations upon the phantom, which last six weeks and cost five dollars each. At the present time there are five Americans in the hospital, two of whom are women, one from San Francisco, the other from Boston.

The day's work begins at 7:15 A. M., when we all meet in the library. If a laparotomy, of which there are three or four each week, is to be made, we adjourn to the abdominal operating room, which with its tile floor and marble walls, is the finest I have seen. After the operation, we return to the library when the records of the labors of the preceding twenty-four hours are handed to **Leopold** who reads them aloud, and discusses fully all points of interest connected with them. He describes in detail the various conditions present in every abnormal case of labor, and states fully the causes of irregularity, and the reasons for the line of treatment adopted. One can learn as much about scientific obstetrics as his former knowledge of the subject has fitted him to appreciate. We then adjourn to the general operating room, where three or four cases are usually in waiting for such operations as curetting, calporrhaphy, vaginal hysterotomy, et cetera, about twenty such operations being made each week. The programme of the morning is often varied by the examination of gynecological cases under chloroform, et cetera. The history of every gynecological case is read before the operation, and at its close the steps of the operation are carefully gone over, often with illustrations upon the blackboard, and the differential diagnosis and treatment explained. All pathological specimens are carefully demonstrated. The Trendelenburg position is used for all laparotomies in which there is no contraindications, and an incision sufficiently long to admit the whole hand is always made. For the last three years ether has been the anesthetic usually employed on account of its supposed greater safety than chloroform. If any affection of the respiratory tract is present, however, chloroform is still used on account of the irritating effect of ether vapor upon the mucous membrane of the air passages. From eleven to one o'clock, and from three to five the courses are held. Saturday afternoon the Professor holds what he calls a "referat" at which he states the history of some interesting obstetrical case, and propounds several questions about its course and treatment. After he has read our answers which are handed in in writing he goes over the case in detail and does not fail to bring out valuable points in diagnosis and treatment.

### A GREAT OBSTETRICIAN.

**Leopold** does not impress us as being a great surgeon, but he is certainly a great gynecologist, and a still greater obstetrician. He is the most careful and conservative German I have yet seen, and his results are correspondingly good. His antiseptic arrangements are said to be the most perfect in Europe. He maintains that a large proportion of all fevers in childbed are due to infection carried to the uterus by the fingers of the nurse or physician. Last year three thousand women died in Germany of puerperal fever, and many dreadful cases of septic infection are brought to the hospital after confinement outside. The women of the Empire pay dearly for the system of licensed midwives that exist here. A large proportion of the labors in Germany are conducted by these midwives, who, of course, work cheaply, and who are often possessed of great practical experience, but whose general intelligence and probable cleanliness, or rather whose lack of these qualities, is well indicated by the women in attendance at the school for midwives in this hospital. **Leopold** ought to have won the everlasting gratitude of the women of Saxony for his efforts in their behalf, for now no woman can procure permission to practice midwifery in Saxony who has not graduated in the school here or at Leipsic, the term of service in each of which is six months.

## ANTISEPTIC PRECAUTIONS.

Every patient, on admission to the hospital, receives a full bath, a rectal injection, and careful cleansing of the external genitals. Her history is then taken, and accurate measurements of her pelvis made, which often gives valuable information as to the conduct of the labor. The records of these cases are especially elaborate and complete. Before labor the hair of the pubis and vulva is cut short with scissors; the pubis, vulva, anus and nates are washed five minutes with soap and water, and two minutes with 1–2000 bichloride solution; and a vaginal douche of one quart of a 1–4000 solution of bichloride is given. The douche is repeated directly after the expulsion of the afterbirth, but is not given again unless special indications, such as offensive lochia, call for it. All deliveries in which the fingers or an instrument have been introduced into the uterus, are followed by an intrauterine injection of a two and one-half or five per cent. solution of carbolic acid. If the patient is very anemic or has kidney disease, only sterilized water or Koch salts solution is used. Bichloride solutions are not employed in the uterine cavity.[1] During the administration of an intrauterine douche, the uterus is kept well contracted by massage, and the face of the patient watched for the first indications of possible collapse. After every intrauterine injection a hypodermic of ergot is given to insure complete expulsion of the fluid used, an ice-bag is applied over the abdomen and a dose of opium given to guard against the possibility of ill results following the douche. Crede's method of securing the loosening and expulsion of the placenta in ten or fifteen minutes after the birth of the child by trying to excite immediate contraction, and by applying considerable pressure to the uterus during the first few pains, is not used here. One hour is allowed to elapse before the placenta, which by that time is usually spontaneously loosened, is expressed. During this time the hand is simply laid gently upon the uterus to make sure that it retains its tonicity. In this way is avoided the hemorrhages which sometimes accompanies Crede's method, and which arises from the expression of blood which has escaped behind the partially loosened placenta during the interval between pains. No binder is applied to the patient's abdomen after labor, and no ergot given excepting after operative deliveries. Ergot is given, however, in childbed when the lochia are too copious, when the uterus is not well contracted, which is often the case in old multiparæ, and in puerperal fever, as microscopical examinations have shown that when the uterine muscular tissue is kept well contracted bacteria do not penetrate it, but are confined to the endometrium. Statistics are on this account better when ergot is used systematically in puerperal fever. The patients are usually discharged from the hospital on the tenth day.

Great care is taken to prevent the infection of parturient women by nurses or physicians. Everybody in the lying-in room must wear a long white gown, and no one is allowed to attend other clinics (there is a city hospital with twelve hundred beds on the adjoining grounds) or examine gynecological cases while attending labor cases. For disinfecting hands that are supposed to be especially infected, the well known solutions of permanganate of potash and oxalic acid are employed, but for ordinary use Leopold has found bichloride sufficiently reliable. The hands and arms are scrubbed five minutes with soap and brush and water, after cleaning the nails, then washed two minutes in a 1–2000 bichloride solution, and one minute in a 1–1000 solution; they are then held in the latter solution until used. Not more than five men are allowed to examine the same patient, and if another is to be examined, the eight minutes process of disinfection must be gone through again.

Seventy-five per cent. of the febrile disturbances in childbed arise from infection of the nipples, laceration of the perineum, vagina, et cetera. These fevers are seldom serious, and recovery is usually rapid. But all *severe* puerperal infections have been proved by **Krönig**, of Liepsic, to proceed from the uterine cavity, which in every healthy woman, whether pregnant or not, is free from bacteria. The vagina and external genitals, however, always contain bacteria. The internal genital tract of a woman can be divided into two sharply defined zones, of which the lower, the vagina, is usually strongly acid, while the upper, the uterus and tubes, is strongly alkaline. The boundary between the two lies at the external os. The bacteria which thrive in the vagina will not grow in the alkaline secretions of the cervix and uterus, and bacteria which multiply in an alkaline medium are destroyed or their activity and development suppressed by the acidity of the vagina. Hence the freedom from microörganisms of the healthy uterus and tubes. Bacteria, therefore, to gain entrance to the uterus must be carried quickly past the protecting acid vagina, and this is usually accomplished by the penis in coition, or the examining finger of a physician. Puerperal fever due to self-infection is rare, and cannot occur in a previously healthy woman. Hence the necessity of thorough disinfection of the external genitals and the hands before making an internal examination of a pregnant or parturient woman.

## EXTERNAL EXAMINATION OF PREGNANT WOMEN.

But **Leopold** also strives to prevent the possibility of infection by avoiding altogether, or limiting in the greatest possible degree, the vaginal examination of a woman in labor. He lays the greatest stress upon the necessity of becoming expert in the *external* examination of pregnant women, and by systematizing the methods of examinations and practicing it with great thoroughness, he has carried it to a degree of perfection not attained elsewhere. So accurate are the results obtained that in one thousand cases of labor which were conducted from beginning to end without any internal examination during the last year and a half, mistakes in the accurate determination of the position and presentation of the child were made but sixty-five times. Indeed I am sure that with the aid of **Leopold**'s four "grips" the diagnosis can be more accurately made by an external than by an internal examination. I have seen the regular assistants of the clinic make more mistakes with the latter than with the former method, and many times women have been brought to the clinic who have been examined internally fifteen or twenty times within a couple of days without the discovery of an abnormality which was disclosed by the first external examination. This being the case, the immense importance of the external examination to general practitioners is self-evident, for how often is a physician called upon to attend a case of labor directly after having visited cases of scarlet fever, diphtheria, or erysipelas.

**Leopold** maintains that no internal examination should ever be made in a *normal* case of labor. But when any abnormalty arises, a vaginal investigation into its causes should of course always be immediately undertaken; such indications are the outset of disturbances in the general condition of the mother which may have a direct bearing upon the course of the birth, as for instance, eclampsia; irregularities which are usually due to local causes in the maternal parts, as hemorrhages, excessive duration of the first or second stages of labor; and irregularities on the part of the child, as abnormal positions or presentations, disturbances in the fetal pulse, premature rupture of the membranes, et cetera. Many obstetricians will, no doubt, insist upon making at least one internal examination in every case of labor, but the information as to the course of a birth derived from a single examination, must of necessity be very incomplete; it should be supplemented by the external examination by means of which accurate information can be obtained in any stage of the labor without danger of carrying infection to the mother. Moreover, it can be used as frequently as desired without subjecting a patient to the mental distress and humiliation of frequent vaginal examinations; and the danger of accidentally rupturing the membranes prematurely with the fingers, which is always a calamity in a difficult labor, is avoided. Dexterity and accuracy in the external examination is rapidly acquired.

## THE EMPLOYMENT OF THE COLPEURYNTER IN DILATATION.

During the past two years **Leopold** has made extensive use of the **Braun** colpeurynter in the Klinik, and is much pleased with its results. It has proved itself valuable in a class of cases that is always troublesome to the practitioner. How many times in the last two years have I labored for hours to secure dilatation of a rigid cervix, usually in a primipara with a narrow vagina, and after many weary hours of waiting, and patient use of hot applications, hot vaginal injections, et cetera, been compelled to apply the forceps through an incompletely dilated os, with the usual results of a lacerated cervix, vagina and perineum, and considerable hemorrhage? No physician who has seen the rapid and harmless manner in which the colpeurynter will produce dilatation of the parts in such a case, would practice long without one. **Barnes'** bags are also occasionally used to dilate the os, but they are unavailable after the membranes have ruptured, which is so apt to be the case, and even when used are often expelled before the os is dilated to the required extent.

The colpeurynter, as is well known, is a pear-shaped rubber bag ending in a tube a couple of feet long, through which it is filled. Before introducing it the hands of the physician, the external parts, vagina, and cervix of the patient, and the instrument itself, are carefully disinfected. It is then folded together, oiled with vaseline, and pushed along the posterior vaginal wall until the cervix is reached. It is then slowly filled with from six to twelve ounces of a one per cent. solution of carbolic acid, while it is held in position to prevent its gliding forward toward the vulva, when it would not only fail to accomplish its purpose, but would cause pain by pressure upon the soft parts of the vaginal outlet. The patient experiences an unpleasant sensation from its pressure upon the rectum, but it passes away in ten or fifteen minutes. The narrower and more unyielding the vagina, the slower must be the filling. When the tube running from the vagina is tied, it is wrapped in a bichloride towel, and laid upon the vulva. The legs of the patient are then tied together, and she is placed upon her side for an hour with instructions not to strain. If she experiences much distress from the instrument, she is given a small hypodermic of morphia if no contraindication exists.

It is difficult to formulate any rule as to the length of time the colpeurynter should be allowed to remain in the vagina; not much effect can usually be expected from it in less than three hours, although it is occasionally pressed out by the pains, and soon followed by the child's head in less time than this. In three or four hours it may be removed, placed in a bichloride solution, and a vaginal examination made to determine the progress made. Before replacing it, the patient's bladder should be emptied, and the vagina washed out again. In this way it has been used thirty-six hours without doing any injury to the soft parts.

The colpeurynter is used for two main purposes: first, to protect the membranes from rupturing, say in a breech presentation when it is desirable to maintain them as long as possible; second, to replace the membranes when they have ruptured before having accomplished their physiological mission of dilating the os to enable the head to pass. In premature rupture of the membranes, it replaces their action, dilates the os, softens and dilates the vaginal tissues, and prevents the further loss of liquor amnii and the descent of the umbilical cord, thus serving to preserve the life of the child. One of its chief uses in the Klinik is to prepare the soft parts for whatever operation may be necessary, such as forceps, turning, symphysiotomy, or Caesarëan Section. For instance, this morning we had a primiparas with a transverse position. At 6 o'clock the os would hardly admit the tip of the finger. To assist in dilating the os and the vagina, and to prevent premature rupture of the membranes, the colpeurynter was introduced. At 12 o'clock the os was almost completely dilated, so the membranes were ruptured, the hand introduced into the uterus, the proper foot seized, and the child immediately extracted. When very rapid dilation of the os is needed, the colpeurynter is introduced within the cervix underneath the presenting part, and, when filled, permanent traction made upon the tube. All in all, it is a valuable instrument which no obstetrician can afford to be without.

### A PROSPECTIVE JOHNS HOPKINS PROFESSOR.

DOCTOR J. WHITRIDGE WILLIAMS, of Baltimore, is over here for a year's study, and has spent a couple of months at this clinic. He will be professor of obstetrics at Johns Hopkins on his return.

# EDITORIAL ARTICLES.

## HELMINTHOLOGY AND MEDICINE.

IF there were any doubt that one of the first duties of every civilized community is to provide itself with a pure water supply, this doubt should be dissipated by the contributions recently made to medicine by helminthology. Not only is impure water now known to be the medium whereby the germs of the graver zymotic diseases gain entrance to the human body, but experiments conducted on lower animals indicate that it is by the water-route the zooparasitic diseases are also implanted.

The liver-fluke of the sheep is now known to pass one of the phases of its life-history in water. A similar trematode, the *bilharzia hæmotobia*, of like habits, induces throughout Africa a grave disease in the kidneys of man. Another group of parasites, the hemotode worms, are known to make a temporary abode in water, and by this medium are introduced into man. The *filaria medensis* or guinea worm and the *filaria sanguinis* are two formidable examples of this genus dangerous to the life of man. *Trichocephalus dispar*, a common intestinal parasite, has also been proved to be water-borne. The ova of the common ascaris lumbricoides reach the alimentary track in the same way. Hydratids as the offspring or tenia echinococcus, are indirectly due to water-supply, as it is well-established that the ova of canine tapeworm are washed into water and so gain entrance to the human stomach.

Water is not only the general medium of transmission of entozoa from one animal to another, but is a necessary medium for the evolution of these various parasites. Elaborate observations have been made into the life-histories of the distomata and nematoda; one of the former, the distoma echinatum, is found as a parasite common in the domestic duck. The ova leaving the intestine of the affected bird, pass with the animal's excreta into the water, where there is hatched out a ciliated embryo. These embryos entering the bodies of various molluscs, undergo metamorphosis and while in this state become encysted and pass into the bodies of other fresh water animals. From this abode they are transferred to their final host the duck or other aquatic bird.

The relations of natural history to practical medicine would seem from these facts to be sufficiently pertinent to call for more liberal stude in the curriculum of a liberal medical education.

## EDITORIAL BREVITIES.

### STATE REGISTRATION OF DANGEROUS DISEASES.

Now that the state boards of health throughout the country appear anxious to register and isolate all cases of communicable disease, the suggestion may not come amiss that they should begin with the registration of a class of cases fully as harmful to the community as those affected by tuberculosis—these are the syphilitics. The registration of male and female syphilitics would be a move towards checking the ravages of a grave and dangerous malady. The hardships which inevitably follow any system of registration would not in this case fall on a class, against whom sentimental objections to registration would prevail.

### THE ORGANIZATION OF SCIENCE.

The address of Doctor Michael Foster at the International Medical Congress contained some plausible suggestions on the organization of science. Among these was one calling for international coöperation in the matter of obtaining statistics. The collection of statistics from a wide field might be the means of leading us to avoid the inferences based on insufficient cases. The misleading percentages, which now perplex workers in all fields, are worse than useless in many branches.

### SELECTION AND RACE PROGRESSION.

DARWINISM *à l'outrance* characterizes DOCTOR RAYCRAFT'S Milroy lectures. The selective action of the microbe in eliminating the weakly is being impeded by preventive medicine. The "bacillus tuberculosis," says the lecturer, "is the friend of the race for it attacks no healthy man or woman, but only the feeble." If things continue as at present "in a hundred years or so the wretched products of our race—embodiments of every constitutional disorder, transmitted by ancestry from whose ranks the diseases have not been weeded out before the child bearing period was over by those natural agencies hitherto free to act—will drag out their lives, martyrs to their surroundings, which they have tried to mould; they who as a race should be moulded by their surroundings." The only remedy suggested is to "replace selection by the microbe, by the selection of human forethought."

## MEDICAL NEWS.

### THE INTERNATIONAL MEDICAL CONGRESS.

As announced, the eleventh meeting was held in Rome, Italy, March 29, 30 and 31, and April 1, 2, 3, 4 and 5. The attendance was large, fairly representative, and many contributions of importance to the medical world were read and discussed in the crowded section meetings and general assemblies, while the social features were arranged and carried out on a scale of unusual magnificence. It was a distinctly creditable and successful meeting. America was very meagrely represented. The next convention will be held in Russia—the choice between Saint Petersburg and Moscow to be decided by the Czar.

### THE LATE DOCTOR RAUCH.

DOCTOR JOHN H. RAUCH, of Chicago, died in Lebanon, Pennsylvania, on March 25. He was president and secretary of the Illinois State Board of Health from the time of its organization to 1891, and was the founder of the Chicago Board of Health. During the war he acted as brigade surgeon under General Augur, assistant medical Director of the Army of the Potomac, and medical director of the Gulf Department of the Nineteenth Army Corps. At one time he occupied a chair in Rush Medical College and also in the College of Pharmacy of Chicago. Doctor Rauch was born at New Lebanon, Pennsylvania, September 4, 1828, and the degree of Doctor of Medicine was conferred on him at the University of Pennsylvania in 1849. At a meeting of the Philadelphia County Medical Society held March 28, a resolution was adopted expressive of great sorrow at the sudden demise of this well-known physician, which characterized him as "a man whose interest in the cause of medical education, and whose efforts in increasing the efficiency of the medical profession and maintaining its dignity and honor, have rendered incalculable service to the public." He was a member of the American Medical Association, chairman of its Section of State Medicine, and one of the trustees of the *Journal*.

### THE PREVENTION OF BLINDNESS.

A BILL which contemplates the prevention of blindness has become a law in Ohio. It embodies the following provisions: "Should one or both eyes of an infant become inflamed or swollen, or show any unnatural discharge at any time within ten days after its birth, it shall be the duty of the midwife, nurse, or relative having charge of such infant, to report in writing within six hours, to the physician in attendance upon the family, or, in the absence of an attending physician, to the health officer of the city, village, or township in which the infant is living at the time, or, in case there is no such officer, to some practitioner of medicine legally qualified to practice in the State of Ohio, the fact that such inflammation, swelling, or unnatural discharge exists. Any failure to comply with the provisions of this act shall be punished by a fine of not less than ten dollars, nor more than one hundred dollars, or imprisonment for not less than thirty days, nor more than six months, or both fine and imprisonment. This act shall take effect and be in force from and after its passage."

## THE AMERICAN MEDICAL ASSOCIATION.

San Francisco, is justly proud of her harbor, and since it is probable that the delegates and visitors to the American Medical Association will be given an excursion upon its waters it will be of interest to many to learn something of its beauties. We will imagine we are upon one of the large excursion steamers and are starting upon our day's outing. The usual rush through the gates for the boat at the last moment is over, the inevitable half-minute-too-late man has been left behind and is sorrowfully wending his way back to his hotel regretting the good time and the free lunch that have departed from him, and the boat with her load of guests has drawn out of the slip into the green bay, and with prow pointing northward is gathering headway for the journey.

It is not yet time for the usual afternoon breeze. The sun is shining bright through a sky that will rival in depth of color and purity of tone the more famous skies of the old world, to the right the green slopes of the coast range of mountains, looking blue in the distance, rise gradually from the shore until having reached the sky the vision is interrupted, and the beyond is left to the imagination, while to the left the receding city with its undulating outline is growing gradually less distinct and its rumble and roar is being replaced by the sound of churning waters from the wheels and the hum of happy voices. On the upper deck and forward is a good position from which to note points of interest.

To the eastward is Goat Island. This was formerly called Yerba Buena, its present name doubtless arose from the fact that during the early forties it was used as a goat pasture. At present it is one of Uncle Sam's possessions. The Oakland and San Francisco ferry boats run just south of the island and many tragedies are said to have occurred near its shores. Occasionally we read in the papers of "the demon of Goat Island." If any one is curious as to this legend, enquire of some native son or daughter and be enlightened. Alcatraz Island lies to the north. It belongs to the United States and is used as a fort and military garrison. It seems too bad to appropriate so bright a spot to such use as the latter, but government and sentiment are not usually very closely related. Over to the left on the main shore is Mount Mason—commonly called Black Point, while further eastward is Fort Point, backed by high bluffs that have recently been strongly fortified. The dirt mounds on their summits, covered with waving wild oats, look innocent enough, but hidden in their depths are engines of destruction so placed as to fully command the entrance to the harbor.

About equidistant between the forts—the Pacific Coast headquarters for the army is located. The neat quarters of the officers are almost covered by trailing vines and climbing roses that partly obscure their outlines. Soon after we have passed Alcatraz, all eyes will be turned to the westward to drink in the view presented. In the center like a mighty river lies the Golden Gate, beyond is the limitless expanse of the Pacific Ocean, to the north the Mission hills rise abruptly from the shore to culminate a few miles away in Mount Tamalpais, while on the south the gentle slopes of the Presides, dotted with evergreen trees, lead backward toward the city. Our boat moves on and new scenes shut this one out, but the impression made will long remain. With a long sweep in toward Sancelits, resting among the trees at the mountain's base, we have turned to the east, and are steaming along past Belvidere and Tiburn.

Angel Island that we are now approaching is of some interest to this company of sightseers; here is located the quarantine station, and perhaps we will be given an opportunity to land and make inspection, but probably our boat will be headed for Raccoon Straits, through which we will pass and cruise about in the broad bay above. Here we will have an opportunity to point out Red Rock, Two Brothers, Hen and Chickens, McNear's Landing—the most delightful picnic place on the bay—the Chinese village of shrimp fishers and other places with which we may be familiar.

Our objective point is Mare Island. This is the government naval repair and supply station for the Pacific Coast. Through the kindness of Surgeon General Tryon and Surgeon Wood, of Mare Island, we will be permitted to land and inspect all that is of interest. Many famous old vessels have been refitted here, and perhaps some are lying in the offing now. After having spent an hour at this place we will board our steamer and start on our return.

There yet remains much to be seen, but the sun is reaching over toward the west, and we must hasten or it may be dark before the circuit is complete. We steam back past Vallejo, Port Costa, with its immense grain depots, Berkeley, our State University town, Oakland, the city of churches, and Alameda, the charming residence suburb. It will be of interest as we cross the bay on our way home to notice the Spreckles Sugar Refinery, the Union Iron Works, where have been constructed such war vessels as the Charleston, San Francisco, and the Pacific Mail Steamship docks, where the Chinese Coolies were at one time landed by the thousands. The sun is dipping into the western waters, and as our boat glides into the slip, the twinkling lights of the city invite us back to our accustomed duties, refreshed and invigorated by our days' outing, and ready for whatever of entertainment may yet be in store.—R. L. RIGDON, Secretary.

## DEATH OF PROFESSOR CORYDON L. FORD, M. D.

DOCTOR C. L. FORD, the distinguished anatomist and teacher, died in Ann Arbor, on Saturday, April 14, in his eighty-first year. His demise was the result of a stroke of apoplexy which he suffered on the previous day. The venerable doctor had been over at the hospital and was at the time on the way home. At the corner of Washtenaw and Forest avenues he fell to the sidewalk, unconscious, and was picked up by some students who happened to be near and taken to his residence. Death occurred at 3 o'clock Saturday morning, and his funeral was held at 3 o'clock on the following Monday afternoon. Doctor Corydon L. Ford was born August 29, 1813, in Lexington, Green county, New York. His father was Abner Ford, and he was the seventh in descent from William Ford, who arrived at Plymouth in the Fortune, the second ship that brought passengers to New England. When he was one year old his parents moved to Butternut, Otsego county, New York, and soon settled on a farm where they remained until 1836, when they moved to Michigan and settled in Wayne county, where his mother died in 1856, and his father in 1860. Doctor Ford acquired his early education in Canandaigua Academy, working his way, through school by such labor upon the farm as was possible for him. At the age of seventeen he commenced teaching in the country school. He often referred to this part of his life and showed a remarkable memory, even going into the details of happenings of over sixty years ago. In those days teachers received small wages and "boarded round." At the age of twenty-one he commenced the study of medicine with Doctor A. B. Brown, of Somerset, New York, but soon removed to Medina, and became a student with Doctor Cabel Hill. In October, 1840, he entered Geneva Medical College. On his graduation he showed special aptitude in anatomy and was at once appointed demonstrator of anatomy in Geneva College. This position he held seven years. In 1846 he was appointed demonstrator of anatomy at the Buffalo Medical College, which position he held in addition to his other work. In 1849 he was elected to the chair of anatomy and physiology in the medical college at Castleton, Vermont. He continued his lectures there till the college closed in 1861. His reputation had meantime proceeded westward, and in 1854 he was invited to the chair of anatomy in the University of Michigan, a position he has since held, completing his fortieth year on Thursday, April 12.

In 1860 Doctor Ford was appointed professor of anatomy in Berkshire medical college, at Pittsfield, Massachusetts. He continued his connection there until 1867. In 1868 he accepted an appointment at the Long Island College Hospital, which he held until 1886. He was also connected with the Maine Medical College at Brunswick, Maine. In explanation of his being connected with so many schools it might be said that originally the medical college year comprised but six months and was so arranged that when one school ended its college year another school commenced. In this way Doctor Ford in completing his fortieth year at the University of Michigan and his fifty-second as a demonstrator of anatomy, also finished his one hundred and ninth course of lectures, which would mean one hundred and nine years of work at one school, a pretty full life, indeed. Doctor Ford has been looked upon for the past quarter of a century as one of the best authorities on the subject of comparative anatomy in this country, and perhaps in the world. It is said that he could be given a bone from any animal and immediately describe the animal. The femur or thigh bone of an animal was once handed him and he at once described it as belonging to an Australian animal once very plentiful, but then almost extinct. He often asked the members of his class who had friends in distant parts to secure for him bones of rare animals. Doctor Ford's death will be a loss to the University which it will be hard to replace. He had often expressed the wish that he could complete his fortieth years' work at the University of Michigan, and said that he would then feel that he had finished his life work. When he gave his lecture on Thursday his fortieth year was completed and he seemed to feel that the end was near. Doctor Ford's wife died on May 2, 1893, nearly one year ago. Doctor and Mrs. Ford had no children of their own but adopted two daughters, one of whom died about two years ago and the other is now in California. The funeral took place at the house, Rev. J. W. Bradshaw officiating. The body lay in state in the south parlor from noon until the time of the funeral and many friends cast a last loving look on the well-known features. The parlor was handsomely decorated with ferns and cut flowers, roses predominating. The southeast corner was decorated by the dental students, the southwest by medical and the center by the Nu Sigma Nu fraternity. The sophomore medical class before which he gave his last lecture, had a number of flowers hung in the archway between the parlors and also decorated his grave.

## THE DETROIT COLLEGE OF MEDICINE.

THE annual commencement of this flourishing institution was held April 19. Nearly one hundred graduates received diplomas. A large banquet was held at the Cadillac hotel after the exercises, at which nearly four hundred guests were present.

## AMERICAN MEDICAL ASSOCIATION.

WHILE San Francisco is a comparatively new city it is not lacking in places of interest to the visitor. About a half-mile to the northwest of the city limits nestling in a little valley and surrounded by evergreen trees is the Presidio, the United States Army station—a short distance beyond is old Fort Point upon the water's very edge—the waves of the bay dashing upon its cement abutments are broken into spray and lost upon its walls.

McDowell avenue leads from near the fort around the top of the cliffs overlooking the Golden Gate and the broad expanse of the Pacific Ocean.

Vessels of all nations and descriptions can be seen in the offing or quietly gliding through the waters of the gate.

The Cliff-House—a famous resort—is situated upon a promontory directly overlooking the ocean. In the distance on a clear day the Farallone Islands—twenty-five miles away—are seen rising abruptly from the water, while less than one hundred yards from where one stands, the "Seal Rocks" put up from the waves and the loud barking of the seals and sea-lions upon them tell why they are so named.

Dutro Heights are just above the Cliff House. Here nature and art have so blended their works that the visitor is truly astonished and delighted with what he sees. The committee of arrangements are planning an entertainment at this place for the wives and daughters of visiting members to the association. All San Francisco is justly proud of Golden Gate Park. What was once dreary sand dunes has been transformed into a very garden. Flowers bloom throughout the year, and the grasses are always green.

Broad avenues wind in and out past the conservatory, the deer paddock, around the base of strawberry hill and on to the ocean beach.

The California Mid-winter Fair is being held in the park at the base of strawberry hill and occupies a space many acres in extent.

This fair has an individuality peculiarly its own, and offers much of interest to every visitor.

SAN FRANCISCO, CAL., March 14, 1895.

## MINOR INTELLIGENCE.

CHOLERA is prevalent at Constantinople.

THERE are upward of 3,000 midwives in New York City.

A MEDICAL congress will be held in India in January, 1895.

PRACTICING physicians in Louisville, Kentucky, are taxed ten dollars.

THERE are 30,000 women in the lunatic asylums of England and Wales.

THE police surgeons of Baltimore have had their salaries increased by the legislature.

TWENTY thousand important operations have been performed by Professor von Esmarch.

THE medical department of the University of Pennsylvania has an attendance of 801 students.

DOCTOR JOHN MORRIS, president of the Maryland State Board of Health, has tendered his resignation.

PROFESSOR WILLIAM LEISHMAY, the distinguished Glasgow obstetrician, is dead. He was eighty years of age.

THE forty-ninth annual meeting of the Ohio State Medical Society will be held in Zanesville on May 16, 17, and 18.

THE Baltimore University Hospital has asked the Maryland legislature for an annual appropriation of $5,000 for two years.

The annual commencement exercises of the Chattanooga Medical College were held on March 13, a class of forty-nine being graduated.

THE British Medical Association will hold its sixty-second annual meeting at Bristol July 31, August 1, 2, and 3, under the presidency of Doctor E. Long.

A BILL is pending in the Virginia Legislature which contemplates the appointment of a number of women physicians to each hospital for the insane.

THE trustees of the Johns Hopkins Hospital are considering the advisability of extending the course in the training school for nurses from two to three years.

A BILL appropriating $75,000 for the erection of an asylum for the indigent insane for Maryland has passed the senate and is being considered by the legislature.

THE Central Railroad of New Jersey has just completed a hospital car which will be equipped with conveniences for moving and caring for the sick and injured.

A NEW hospital will be erected in Baltimore. It will be equipped with modern improvements and have accommodations for one hundred and fifty patients.

THE University of Pennsylvania has been enriched $25,000, the widow of the late Professor D. Hays Agnew having donated that amount to establish the Agnew Memorial Hospital.

THE San Francisco Medical Society has voted to appropriate $1,500 to assist the State Medical Society in entertaining the American Medical Association during its forthcoming meeting.

THE MICHIGAN STATE MEDICAL SOCIETY.—The annual meeting at Lansing promises to be a very successful gathering. A large and representative program in all sections has been provided. It is hoped the profession will attend in large numbers.

EFFORT is being made in Ohio to secure the passage of a bill in the legislature to repeal the pharmacy act requiring examination to register as pharmacist, and institute a measure permitting anyone having five years experience in a drug store to perform the work of this functionary.

DOCTORS LINDHOLM and Vinsen, of Bergen, Norway, claim that the pitting of small-pox patients is due to the sensitiveness of the skin to violent rays of light. In order to test the validity of this claim red glass is to be experimented with in one of the small-pox pavilions at North Brother Island.

THE mortality from typhoid fever in Paris during 1893 was 633, while in 1886 it was 1,035, and 1880 it was 2,120. The death rate from this disease was 53.4 per 100,000 in 1869; 147 in 1882, and 27.7 in 1893. This diminution has been caused by the increased supply of pure water, and the decreased consumption of water from the Seine.

"THE dispensaries of Baltimore contain placards 10x14 inches bearing the following admonition: Watch the baby's eyes carefully for a week after birth. If they look red, or run matter, take it at once to a doctor. The child may become blind if not treated properly." This timely advice is given by the Medical Chirurgical Faculty of Maryland.

GEORGE ALBERT LÜCKE, professor of surgery in the University of Strassburg, and a well known contributor to medical literature, died suddenly on February 20, at the age of sixty-five. He was one of the founders of *The Deutsche Zeitschrift für Chirurgie*, and in 1879, in conjunction with Billroth, began the publication of a work on "Deutsche Chirurgie," which was to appear in sixty parts.

THE casket in which the freedom of the city of London was presented to Jenner on the 11th of August, 1803, was recently purchased at a sale of unredeemed pledges at a London pawnbroker's. It was given to the father of vaccination for his "skill and perseverance in the discovery of, and bringing into general use, the vaccine inoculation," this being the inscription which the memento bore.

THE Berlin Medical Society has a membership of 914. During 1893 it held thirty-three meetings, listened to the reading of thirty-seven papers, and gave seventy-eight demonstrations. Its income for the year was 27,985 marks; its expenses were 23,850 marks. The amount of its funds is 91,000 marks. Professor Virchow is president for the current year, with Doctor Siegmund and Professor von Bergmann as vice-presidents.

THE Maryland legislature has made the following appropriations: Spring Grove Asylum, $35,000, an increase of $10,000; Woman's Medical College, $2,000, $500 increase; Home for Incurables, $2,500, $500 increase; Woman's Hospital, $4,000, $2,000 increase; Baltimore Medical College, $,5000; Southern Homeopathic Hospital, $1,000; and Maryland College of Pharmacy, $2,000.

DOCTOR J. S. BILLINGS, on behalf of the Surgeon-General's office, is negotiating with the family of the late Professor August Hirsche, of Berlin, for the purchase of the latter's library, consisting of nearly ten thousand volumes. The Germans are averse to having this valuable collection of books leave their country, and are endeavoring to raise money to purchase it.

BROWN-SEQUARD, the French physiologist and savant, died at Paris on the 2d instant. He was born April 8, 1817, on the island of Mauritius, and received the degree of Doctor of Medicine in 1840. At one time he lectured in the College of Surgeons in London, and was physician to the London Hospital for the Paralyzed and Epileptic. From 1864 to 1869 he was professor of physiology and pathology of the nervous system in Harvard College. From 1869 to 1871 he filled the professorship in the School of Medicine of Paris. In 1873 he was resident of New York, returning to Paris in 1878, to occupy the chair of Experimental Medicine in the College of France. He was a generous contributor to medical literature, and achieved universal renown by his articles on the elixir of life. His wife was Miss Carlisle, a native of Cincinnati.

AMERICAN MEDICAL PUBLISHERS' ASSOCIATION.—The annual meeting of this association will be held at White Sulphur Springs, West Virginia, Friday and Saturday, August 3 and 4, 1894. The annual dinner will be given in the evening of the first day. A number of practical papers are being prepared, bearing upon subjects of interest to every one engaged in medical publishing. The above dates have been selected as a time when most business men can spare a few days for a pleasure trip, and reduced rates having been secured at the hotels for members and their families, it is hoped that this meeting will be one of congeniality as well as of business interest. A special meeting has been called for June 4, at San Francisco, in the Palace Hotel, at 1 P. M. sharp, for the transaction of special business. It is hoped that all publishers attending the American Medical Association will make it a point to be present at this meeting.

# RECENT PUBLICATIONS.

## REVIEWS.

### A PRACTICAL TREATISE ON MEDICAL DIAGNOSIS.*

DIFFERENTIAL diagnosis is much aided by the excellent manuals upon this subject now accessible to physicians and students. Doctor Musser's book combines the study of the objective and subjective phenomena of disease, and the methods employed for their determination. Special attention is given to the objective changes occurring in morbid tissues, and the uses of instruments of precision in determining pathological variations are insisted upon. The value of all collateral data is estimated. The important influence of bacteriological research, in establishing definite diagnosis is not ignored, and colored plates illustrate the contributions of the microscope to practical medicine. For the practical study of the phenomena of disease some such manual as this is indispensable, and among these books Doctor Musser's will take a foremost place. It will at once be recognized as a valuable aid to the successful practice of medicine, by those who will be fortunate enough to secure it.

* For students and physicians. By John H. Musser, M. D., Assistant Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia; President of the Pathological Society of Philadelphia, et cetera. Octavo, 873 pages, 162 engravings and 2 colored plates. Cloth, $5.00; leather, $6.00. Philadelphia: Lea Brothers & Co., 1894.

## HOLDEN'S MANUAL OF THE DISSECTION OF THE HUMAN BODY.*

THIS most practical of the many manuals of dissecting comes before us in a sixth edition, and will doubtless be received with as much popularity by students of anatomy as were its previous editions. The excellent engravings with which the work is so richly embellished, bring the matter of demonstration home to the student. The most improved methods of dissecting are carefully laid down, and the manual includes all that the student can desire in a *vade mecum* for the anatomical laboratory.

*Edited by John Langdon, Surgeon to St. Bartholomew's hospital, London. Sixth edition. Revised by A. Hewson, M. D., Demonstrator of Anatomy, Jefferson Medical College. Three hundred and eleven illustrations. Price: $3.00, cloth. P. Blakiston & Co., Philadelphia.

## A MANUAL OF MINOR SURGERY AND BANDAGING.*

HEATH's minor surgery shows no symptoms of waning popularity. The tenth edition which has just been issued by its publisher, embodies all the latest information regarding antiseptics. The manual is a type of what such a book should be. The whole field of minor surgery, dressings for wounds and fractures, and general bandaging is thoroughly traversed. The manual is invaluable for the house-surgeon, and the resident corps of any hospital.

* By Christopher Heath, F. R. C. S., Surgeon to University College Hospital. Tenth edition. Cloth. Price: $2.00. P. Blakiston & Co., Philadelphia.

## ANTISEPTIC THERAPEUTICS.*

TROUESSART's work on antiseptic therapeutics is here produced in a translation by Doctor G. P. Hurd, whose familiarity with French literature has led him to select so many admirable examples of French authors for presentation to American readers. .

Trouessart is an authority upon microbes, ferments, moulds, and kindred subjects. In his present work, the rôle of antiseptics in modern medicine is clearly detailed. The influence by antiseptics in diseases of the nerves and such affections as rheumatism is treated of, in addition to all the diseases in which the part fulfilled by antiseptics is more apparent.

* By Doctor E. L. Trouessart, Paris. Translated by E. P. Hurd, M. D. Two volumes. Paper, 50 cents. Geo. S. Davis, Detroit.

# PRACTICE.

## THE LETTER OF THE LAW—SEQUEL OF A CELEBRATED CASE.

Rarely is such a measure of interest accorded a legal process by the pharmaceutical and medical world as was aroused some two and a half years ago by the famous nux vomica suits in the Atlantic Court of Common Pleas, New Jersey. A brief review of those proceedings and of the curious solution which time has recently effected in the legal complications, will not be devoid of profit. The plaintiff in both these cases was George W. McGuire, state dairy commissioner for New Jersey, and criminal action was brought by him against the two defendants on the charge that each had sold a quantity of tincture nux vomica, which upon examination was found to contain less than two per cent. of dry extractive. The basis of the prosecution was an existing New Jersey statute, which enacted that any preparation shall be deemed to be adulterated if (when sold under, or by a name recognized in the United States Pharmacopeia) it "differs from the standard of strength, quality, or purity laid down therein." And two per cent. extractive, as stated, was the standard of the United States Pharmacopeia) at that time. The evidence introduced developed the fact that the tincture had been prepared from normal liquid nux vomica (Parke, Davis & Company); the plaintiff's witness testified that it contained 0.712 per cent. of dry extractive; and upon this the prosecution rested its charge of adulteration within the meaning of the statute, no attempt being made to establish the therapeutic inferiority of the disputed preparation, or any deficiency in the needful content of the all-important alkaloids. Seldom has such an array of learned talent or such a wealth of distinguished evidence been brought forward in defense of any cause involving a pharmaceutical question, as was now adduced by the respective defendants in sustaining their position. Professors Remington, Hare, Rusby, Ryan, Marshall, Doctor Eccles, and the lamented Professor Bedford, all went upon the stand and declared with one voice that the active constituents of nux vomica are its two alkaloids, strychnine and brucine, alone; that the quantity of dry extractive forms no standard of strength, quality, or purity, and may, indeed, be completely inert—without medicinal property or physiological action; that tinctures of nux vomica made, as was the one in question, from the normal liquid, are far more reliable than the tinctures on the market produced in exact accordance with the United State Pharmacopeia formula, since the former are of uniform alkaloidal strength, and the latter subject to extreme variations of medicinal potency; that the United States Pharmacopeia standard could be easily evaded by the addition of sufficient glucose to any inferior tincture; and finally, that the Pharmacopeia of 1880 really offered no means of determining the "strength, quality, or purity" of the tincture to which the name standard could with any propriety be applied, hence was virtually devoid of such standard. All for naught. Here the gods themselves would have contended in vain. Conceding the entire probity of the defendants, and the full medicinal value of their tinctures prepared from the normal liquid of nux vomica, Judge Reed, nevertheless, decided in the first case that such tinctures were adulterations within the meaning of the New Jersey statute, since the requirement of two per cent. dry extractive was not fulfilled! In the second case, some misgivings must have begun to assail the judicial intellect, since the case still hangs suspended in the limbo of the undecided. But if the judge showed an undue tenacity in clinging to an obsolete standard, and a disposition to apply the narrow letter of the law, our Pharmacopeia Commission have taken a very different view of the question. In the revised edition (1890) we are happy to observe a radical change in the requirement made of tincture nux vomica: it is no longer two per cent. of extractive, but rather 0.3 per cent. of total alkaloids—the identical alkaloidal content which the manufacturers of the normal liquid had long adopted as their own standard for the tincture. The new Pharmacopeia became a part of the New Jersey law on January 1, 1894, thus depriving the cases of all legal basis. While we may now smile at the emphatic way in which time has rejected the decision of the New Jersey court, it is obvious that its very absurdity from a medical and pharmacal point of view was not without a compensating benefit in promoting the adoption of a rational standard for this and a few other important preparations in the new Pharmacopeia. Inasmuch as five of the witnesses for the defendants were likewise members of the revision committee, the agitation imparted to the question of standardization by the nux vomica cases was unquestionably an active agent in the pharmacopeial changes thus far introduced—changes which, it is to be hoped, will be multiplied until every potent official remedy shall be provided with a standard which will guarantee a uniform medicinal action. The introducers of normal liquids may well feel content with the handsome vindication which their enterprise has received at the hands of the Pharmacopeia Commission, and with the high compliment embodied in the recent adoption of their well-known standard for the official tincture.—*The Bulletin of Pharmacy.*

FERMENTATIVE DYSPEPSIA.—In a paper on this subject published in the October number of *The New York Medical Journal,* Doctor Flint says: "In nearly every case of functional dyspepsia that has come under my observation within the past ten months, I have begun the treatment by giving five grains of bismuth subgallate, either before or after each meal. In some cases it seems to act more favorably when given before meals, and in others its action is better if taken after eating. * * * The bismuth subgallate is almost a specific in cases of purely functional dyspepsia with flatulence. * * * I was led to use bismuth subgallate by seeing it recommended as a valuable remedy in the diarrhea of children, acting as a disinfectant. I first employed it in a case of dyspepsia of eleven years' standing. Its action in this case was so favorable that I began to prescribe it very largely, almost invariably with remarkably satisfactory results. * * * In a case of alcoholism of twenty years' standing, with habitual dyspepsia for the last five or six years, bismuth subgallate gave almost instant relief; the flatulency and distress disappeared in twenty-four hours and did not return, except in a very mild degree, when they were usually relieved by a single dose. * * * A case of dyspepsia of four years' standing, with a chronic diarrhea, was entirely relieved in five days by the use of the bismuth subgallate alone. A case of dyspepsia of more than thirty years' standing was promptly relieved by bismuth subgallate alone. In this case, every few weeks the trouble returns and is relieved by two or three doses. I am indeed no longer surprised at results from the use of this remedy which first seemed to me remarkable; and now I confidently expect prompt and favorable action. I have been in the habit of prescribing it in capsules containing five grains each, but lately have had it prepared in the form of tablets. In this latter form it is more convenient and seems to act more favorably." * * *

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### APPENDICITIS IN GENERAL PRACTICE.*

BY S. C. J. OSTROM, M. D., SAGINAW, MICHIGAN.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

THERE are two ways of treating this subject. You may follow the example of JOSH BILLINGS in his famous lecture on "Milk." He held up the glass of milk before his audience, made the subject very prominent, drank the milk, no doubt, but never mentioned his subject again during the entire evening. You may follow the advice of DOCTOR NORTHRUP, of New York, when he says a paper before a medical society should be like the working of a syringe—"Begin, spatter, end." In our attempt to-night we will combine both plans, or, in other words, we may say some things that are not indicated in the title, and perhaps do some spattering.

In using the term "general practice" we come more directly into the life of the practitioner than that of the specialist, and you will pardon me, gentlemen, if I seek out the lonely general practitioner, and speak a few words of comfort to him. He is really a great man, and a brave one, and is becoming of more and more importance every day. Specialists we have in large number, and abdominal surgeons are an army in themselves. The general practitioner is a specialist in all departments, and is such because of his varied knowledge and experience. If he should turn his attention in any one direction it would be because his business had run largely in that line. One of the best gynecologists in the state of Michigan began as an eye specialist. He spent time and money in preparation for that specialty in connection with general practice. But in active life, in the grand struggle as a bread winner, he had comparatively nothing to do in the eye department, and in time grew to be a recognized authority in gynecology. His reprints and lectures have done a good deal toward elevating the profession to its present high standing in the medical and surgical treatment of the diseases of women. I remember among my friends and acquaintances in the general practice of medicine some of the most skillful and honored men in the profession. To them an amputation of the thigh, ovariotomy, iridectomy, hysterectomy, or the treatment of a case of typhoid fever are all alike. They are the practical physicians and surgeons of the day. In the country districts, or places remote from medical centres, we do not give the every-day plodder the credit he deserves. He becomes self-reliant from necessity, and in this day of medical books, journals, and reviews, his home becomes to him a valuable university. He is, or may be, as well posted in medical literature as those more highly favored. If he is still progressive he can snatch a month from his busy life and avail himself of the advantages of the post-graduate school, thus keeping more and more to the front every year. He still plods along, doing the greatest good to the greatest number, until such time as his business puts him into the rank of the genuine specialist. He is not fresh and unseasoned, manufactured for the occasion, but is self-made in every respect, a living representative of the evolution of science and the betterment of man.

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*Read before the SAGINAW COUNTY MEDICAL SOCIETY.

The general practitioner ought to do in every-day practice anything the specialist does, and to his honor be it said he always refrains from mutilating women unless the best of reasons exists for a removal of the uterine appendages. It takes more than one "fit" to persuade him to wrest the unoffending ovary from its peaceful sleep in the folds of the broad ligament. I am not disposed to carp at the true specialist, but his counterfeit is to be stepped upon wherever you meet him.

I am very sorry for one thing in the life of a general practitioner; that is if he would imitate the real specialist, and use the medical journals more, and the daily press less, what a power for good he would be. The leading men in our large cities make a business of reporting their cases and commenting upon them in journals and reprints. There may be a good deal of unassorted lumber in the pile, but we can, if we like, select the clear stuff. This is legitimate advertising, and the men who follow it become prominent whether they will or not. They not only reap the fees, but benefit the profession.

Although the general practitioner attacks disease in all forms, and never shirks when duty calls, yet he never finds himself in a more trying situation than when face to face with a case of appendicitis. He is really in a dilemma, and his keenest, most mature judgment must decide his course in the management of the case. In the first place he must settle beyond a doubt that he is right is his diagnosis, and is aided in his decision by the concession that ninety per cent. of all cases involving the region of the cecum, originate in the appendix. In acute cases he has no time to waste in working out a differential diagnosis. Something must be done at once and a treatment instituted. Again comes the question of an operation, and he is again puzzled. **Treves** says eighty per cent. of all cases recover spontaneously. **Guttman** treated medically one hundred cases, with four per cent. of deaths. **Talamon** says ninety per cent. of all cases of appendicitis get well without surgery. It is quite a different thing when an operation has been decided upon and the surgeon called in. He has no real worry, for he knows what he has to do and how to do it, and goes at it as methodically as a carpenter would in doing a job in his line. On the other hand, if he rather leans to medical treatment, he is confronted by the late exhaustive article of Doctor Murphy, in which 141 operations, with sixteen deaths, are recorded. Doctor Murphy, than whom no better authority exists, practically advises operation in all cases. Now, which horn of the dilemma will you take? So much has been written of late on the subject of appendicitis that it would seem as if the last word had been said, and I will not burden you with the history, etiology, morbid anatomy, symptoms, treatment, et cetera, of this most important of intestinal diseases. I will rather take a few cases from the note book of the every-day physician, and with a few deductions try to help solve the question of what to do and when to do it.

*Case I.*—September 12, 1893: Male, aged thirty-five years, was called to see patient in the night. He had suffered quite severe pain in the right iliac region for several days. Bowels constipated, vomiting occasionally; local swelling well-defined and painful on pressure. Had chills and fever, the evening temperature ranging from 101° to 103°. At the end of a week, advised operation and explained the urgency of the case. The patient and family refused to have any cutting done. He made a good recovery and is to-day as well as ever.

*Case II.*—September 16, 1893: Male, suffered severe pain in right iliac region. He attributed his trouble to doing some overhead painting the previous evening. He admitted not feeling first-rate for some time; had dyspeptic trouble; intestinal derangement. The pain in cecal region quite severe; tumor well-defined; skin edematous and slightly red; tongue furred. It was indeed a typical case, and the state of affairs and the probable outcome had been explained to him. Consultation was had and all deemed an operation the best and only sensible thing to do. The patient steadily refused all operative procedures. All the symptoms of abscess formation were present, and the patient continued ill for nearly eight weeks. He weathered the storm without operation, and is to-day attending to active duty as a grocery keeper, which requires being on his feet all day.

*Case III.*—Male, aged thirty-eight years. Patient had been ill two weeks. The case was a typical appendicitis, with sufficient pain to indicate perforation. The lump or exudate in the right iliac region the size of a hen's egg—painful on pressure; leg flexed; evening temperature 105°. The local physician advised operation. When I saw the patient he was so much better that I tremblingly advised waiting a few days. He continued to improve and is now perfectly well, with no signs of recurrence.

*Case IV.*—Female, aged thirteen years. Severe pain in the right iliac region, which was also attributed to the entire abdomen. The swelling extended from right iliac fossa to umbilicus; face pinched; knees drawn up; constipation; vomiting, and high temperature. Pain came on suddenly while at play. Advised an immediate operation, but parents wanted to wait another twelve hours. When I saw patient next day, she was much improved; pain less severe; temperature lower, and she continued to improve without operation. Is now well and happy.

*Case V.*—Mr. A., aged thirty-five years, reported at Bliss Deaconess Hospital, suffering from lump in right iliac fossa. He gave the history of recurrent appendicitis, and had suffered four attacks in as many months. Each attack seemed more severe than the previous ones, and he was very anxious something should be done, as he feared he would die in the next attack. **Treves** says operate after an acute attack, and his advice was followed. It is unnecessary to go into details of the operation. The adhesions were extensive and the appendix adherent. In lifting the cecum into the wound pus suddenly welled up, but not in large quantity. The seat of irritation seemed to be near the cecum, and ready no doubt to perforate at any time. No hardened fecal matter nor foreign substance was found in the appendix. The patient made a good recovery, and left the hospital in three weeks.

Now, gentlemen, these few cases, taken from every-day practice, are fairly typical of appendicitis in general practice. In all instances general peritonitis seemed inevitable, and early operation was advised, and although patients all recovered, I am sure that an operation would have hurried matters. In general peritonitis, operation or no operation, the case is usually fatal, and therefore an early operation should be insisted upon. The surgical procedure should have no terrors for the general practitioner; if he is competent to lance a boil he can make the operation. One great mistake is wasting too much time looking for the appendix after you have evacuated an abscess in the right iliac fossa, and manipulating the viscera too much.

In all cases of recurrent appendicitis and acute appendicular perforation, with diffused peritonitis, the operation should be performed.

The medical treatment can be summed up in: rest in bed; opium, and large enemata night and morning; in the beginning an ice-bag over the seat of pain in the iliac region, and later, hot applications and counterirritants. The tendency of the year seems to be equally divided between the advocates of medicine and surgery in the management of appendicitis.

Finally, gentlemen, after the operation is made, the physician in charge must hunt up the reporter of the daily press. He should prepare in the meantime a carefully written article and get it in the next issue as a matter of news. It is always best to have it fresh, otherwise it would be better to have a cut of the patient before and after the operation. But this means delay. If you cannot succeed in bluffing the reporter to insert it as a matter of news, you can pay for it, not exceeding $4.50 for each insertion. If the case has occurred in private practice, see to it that a copy is mailed to anyone in the neighborhood who does not take the paper. It is foolish to write an article for a medical journal for it only reaches the profession and might do some good. It is the public you want, and the newspaper will serve you best. In this way you wag two tongues, your own on all possible occasions, and the newspaper tongue each day. If you are a church deacon, of course, you cannot do it, for **Timothy** says "deacons must be grave and not double-tongued." But you are neither a deacon nor a deaconess. You might be **Romeo** and consider the public your sweetheart, and see "how silver sweet sound lovers' tongues at night;" that is the telephone tongue just before the paper goes to press. If your neighbor, the specialist, is pursuing your tactics, denounce him, call him a coward; and in the language of the Duke of York say, so all can hear you, "This knave's tongue begins to double." If the operation has been done in the hospital, thereby showing that the poor sufferer, who for years perhaps has concealed her misery from even members of her own family, has been compelled to seek relief in such an institution, you must be sure to write up a good account of it. Her feelings and those of her family are nothing compared with your feelings as an operator. Always call it a delicate operation, for that will do more to start the gossips than if you called it appendicitis or any other name. These articles should always be of good length, but the obituary need only take up a few lines. It is always wise to get the notice of the operation inserted prior to that of the obituary. It sounds better, is more enterprising, and removes any possible thought of a connection between the two. The prophet Joshua "saw a tongue of gold and coveted it." The principle has been handed down and the profits of the present day have a direct connection with the prophets of old. You need not confine yourself to reporting great operations. A gumboil may be made to represent a tumor of the mouth, and the man who can remove a tumor is no ordinary man. He is a specialist on tumors, and the public should know it. This is an age of tumors.

If even this fails him, he must nevertheless keep himself before the public. The general practitioner can appreciate, but the public cannot, the difference between a cheap and a good advertisement. You can accept, reluctantly, of course, the first invitation you get to give a series of lectures on "First Aid to the Injured," before some church society. Greatly against your wish, they will be reported in the daily papers. This is just as good as being interviewed, or posing as post-prandial orator.

Now, let us all pull together as one man—it is better than *one man* pulling the rest of us. We can all swell up on the same yeast, and as we *rise*, no one can say, "Upon what meat doth this man feed that he hath become so great a man," because we will all be great. Then, like the faithful Arab, we will carry in our heart of hearts a knowledge and a comfort which nobody else knows, which is the daily exemplification of that sublime precept in the Koran, "He who bloweth not his own horn shall not be heard in all the land."

## THE PERNICIOUS EFFECTS OF ALCOHOLIC LIQUORS IN THE TREATMENT OF DISEASES.*

By ALONZO BRYAN, M. D., Detroit, Michigan.

[Published in The Physician and Surgeon exclusively]

"There is," said Lionel Beale, years ago, "no more important question in medicine to be determined than the action of alcohol in disease;" and it is my belief that the tone of that question from that eminent man is the loudest that is appealing to the medical world at the present time. Beale is cautious and conservative in his statements, but there are others, equally illustrious, who have almost entirely passed the bounds. Heading the list of these latter is B. W. Richardson. Around his name cluster others. His name is as much a center in this regard as is that of the late Henry Maudsley in the department of the "physiology and pathology of the mind." The order of his science is so high that it can scarcely be questioned, and it is by this that he outranks all other collaborators in his particular field of research and investigation. Others are for the most part simply exemplifying what he has demonstrated so lucidly and unimpeachably. He almost wholly excludes the therapeutical use of alcohol.

*Read before the Detroit Medical and Library Association.

With reference to the physiological action of alcohol, the following quotation (in his own words) is a brief summary of DOCTOR RICHARDSON'S conclusions:

"What I call the preliminary and physiological part of my research was now concluded. I had learned purely by experimental observation that in its action on the living body, this chemical substance, alcohol, deranges the constitution of the blood; unduly excites the heart and respiration; paralyzes the minute blood-vessels; increases and decreases according to the degree of its application, the functions of the digestive organs, of the liver, and of the kidneys; disturbs the regularity of nervous action; lowers the animal temperature; and lessens the muscular power. Such, independently of any prejudice of party or influence of sentiment, are the unanswerable teachings of the sternest of all evidences, the evidences of experiment, of natural fact revealed to man by experimental testing of natural phenomena. If alcohol had never been heard of, as nitrite of amyl and many other chemical substances I have tested, had never been heard of by the masses of mankind, this is the evidence respecting alcohol which I should have collected, and these are the facts I should have recorded from the evidence. * * * This record of simple experimental investigation and results respecting the action of alcohol on the body were incomplete without two other observations which come in as a natural supplement. It will be asked, *was there no evidence of any good service rendered by the agent in the midst of so much obvious bad service?* I answer to that question THAT THERE WAS NO SUCH EVIDENCE WHATEVER, AND IS NONE."

Such were the results of the observation, during three years, upon man and animals subjected to the most guarded scientific experimentation, by a man gifted with an indisputably high ability for the ascertainment of facts, and a comprehension of their significance. It is completely evident from the experimentation of the most eminent observers, that alcohol is pernicious in its effects upon all living colloidal matter, that is, matter which includes nervous tissue, muscles, fibrin, and the cellular elements of the blood; and for this statement the facts are patent to every reader of numerous authors upon the subject. Space forbids the enumeration of the multitude of striking particulars in confirmation of this statement, but I beg to quote a few lines from LIONEL BEALE. He says (while believing in the medicinal use of alcohol):

"Alcohol does not act as a food, it does not nourish the tissues; it may diminish waste by altering the consistence and chemical properties of the fluids and solids. It cuts short the life of rapid growing cells, or causes them to live more slowly."

Now, what is left for us, who are practical physicians, except to act with reason upon the evidence afforded by those eminent in original and basilar research? But, you may ask, what about the eminent investigators on the other side of your question? Why, I say (no matter how great their achievements in other directions), that HAMMOND, AUSTIE, and even LIONEL BEALE in his concessions to the use of alcohol, are half-hearted, left-handed, indirect, uncertain, indefinite, inconclusive, and a sort of scientific beggars in this important matter. I say that those men are too fantastical in this regard, and that they must be thrown out as cards useless in playing the game.

Now, in a practical sense, what may first claim our attention? Recently a brilliant theory has been projected into the histological world. It is the principle of phagocytosis. The beauty of it is so great that we are attracted by it, and its reasonings have riveted general attention. I think that its doctrines must prevail. It is said that certain cells have the power to absorb and so destroy other cells. This is phagocytosis. It is said that "the cells which are known to possess phagocytocic properties are the leucocytes, mucous corpuscles, connective tissue cells, endothelia of blood-vessels and lymphatic vessels, alveolar epithelium of the lungs, and the cells of the spleen, bone, marrow, and lymphatic glands" (SENN). This is a very significant array of colloid matter; and it has been repeatedly affirmed by the highest authorities that alcohol is poisonous to the colloid element.

Now, among the most important of the phagocytes just enumerated are the leucocytes. They embrace and enfold the pathogenic germs with which they come in contact by what is known as an ameboid force. They enclose, disintegrate, and absorb the enemy. It is well known that the moment the leucocytes are submitted to an alcoholic solution their ameboid movements cease, and their function is arrested. It is plain that their phagocytocic power is immediately destroyed. It is imminently possible, also, that the fixed tissue-cells are likewise impaired, or killed, by alcoholic imbibition. How deleterious, and even deadly, must the internal administration of alcoholic liquors then be in the treatment of diphtheria, and of other diseases having a germinal origin? It, therefore, follows, in my mind, that all the diseases which are the result of germinal infection, are most badly treated when alcohol is used in their therapy.

With extreme brevity I advert to another view in the field. It is that of adynamic diseases. It has been conclusively proven that alcohol decreases the muscular power. It decreases (from the minimum dose to the maximum) the power of the heart as well as that of all other muscles. I say this has been absolutely demonstrated by RICHARDSON and others. In death from adynamia it is through failure of muscle, that is, of the heart, of the scaleni and intercostals, of the diaphragm, and of the laryngeal muscles, et cetera. All of the muscles may gradually fail, become wearied unto death. How pernicious then must alcohol be in adding its influence to bring about the tragic end.

It is my belief that it is in diphtheria that the most dire results are to be observed. In that disease the vast majority of cases die by asthenia, or else by sudden failure of the heart. To what is this sudden cardiac paralysis due? The elucidation is as follows: In the grave cases there is almost invariably a subnormal temperature, together with great muscular prostration. Also it is a physiological fact that a decrease of the temperature slows nervous conduction. As the system is made colder the nervous force flows slower and slower. In diphtheria the heart muscle is very weak, the temperature falls, the lessened nervous energy but feebly animates the muscular fibres, and so actual paralysis ensues, death closing the scene almost instantaneously. Now, in such a state of imminent danger, brought about by such causes, what could be worse than to administer an agent which notably reduces temperature, and at the same time enfeebles muscular power? May I add, What would be the remedy in such a condition? and I answer, *External heat freely applied to the whole surface of the body*. This will prevent the cardiac paralysis whenever it is preventable.

# CRIMINAL ANTHROPOLOGY.

By SAMUEL BELL, M. D., Detroit, Michigan.
MEDICAL COMMISSIONER TO THE STATE BOARD OF CORRECTIONS AND CHARITIES.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

In this country the study of criminal anthropology is in its infancy. Doctor Jacobi, of New York, and Doctor McDonald, of Washington, have both contributed largely of valuable matter to the subject. I shall to-day in my remarks deal with the criminal from several stand-points.

(1) The evolution of crime in the criminal.
(2) Physical deviations from normal.
(3) Methods of criminal detection.

Many crimes committed to-day for which we hold the criminal amenable to the law were for centuries considered rather as acts of heroism, and in comparing the public ideals of those times with ours of this era of enlightenment, we are impressed with the elevation of sentiment and the adaptation of punishments to a reformatory end, which now obtain.

The plant, brute animal, and civilized man are stages in a natural plan; and pass imperceptibly from one into the other, thus forming a whole. Accordingly nature can be studied in her lowest form and gradually followed to higher values and more developed stages. Passing from the vegetable to the animal kingdom the crimes increase in variety and number.

These facts are familiar to many who have studied abnormal instincts in animals. Cannibalism being practiced among wolves; field rats and mice when caught in traps have been known to devour one another; porpoises and rabbits have been known to do the same even when having abundant food.

Cannibalism and infanticide often go together. The crocodile will eat her young when they cannot swim. We have seen a hen abandon her weak and sickly chickens and start off with the strong and robust. Birds are known to break their eggs and destroy their nests. Monkeys will dash their young against a tree and kill them when they are tired of carrying them. We have also known cats, dogs, and hares to practice infanticide, and young foxes to practice parricide. Animals as well as men become infuriated, and develop uncontrollable passions under excitement. Bears have been known to quarrel in a zoölogical garden, the female bear becoming exhausted, and her mate improving the opportunity for revenge held her under the water, then dragged her around until dead. In the north of Scotland herds of cattle have been known to put their guilty members to death. Many other instances are recorded of animals taking the lives of their kind for certain trangressions. Theft, swindling and deceit are quite common among animals. Dogs and cats will steal food to satisfy hunger, but only for immediate consumption, but the magpie, rat, monkey are born thieves, and steal for the love of stealing. Horses in military stables have feigned lameness in order to avoid military duties. The cuckoo sometimes lays its eggs in the sparrow's nest, and in order to make the deception sure has taken away one of the sparrow's eggs.

It is well known that the judicious training of animals will develop qualities to an amazing degree, and it is also known that no amount of training will change certain traits and instincts. The cat will steal in spite of all punishments to prevent it. Is it not a strange coincidence that the human thief is the hardest to cure of all criminals?

## CRIMINAL SAVAGES.

Crime among savages was the rule. Sanskrit philologically means action. The heathens have assassin gods who are held in great esteem on account of their infanticidal and parricidal attributes. Abortion, unknown among animals, is common among savage people. Some tribes in central Africa use children for bait to catch lions with. The ancient Mexicans destroyed the sick and aged. The Caledonians practiced this also, no person being found among them over forty years old. The ancient savages of Europe also cut short the lives of their sick and helpless, before the development of law and order had incorporated an element of morality.

Homicide is but a joke to the Malay. In fact the list of crimes practiced by the savages is too long to dwell upon in an article of this kind. During the middle ages theft was considered worse than murder. Tribal justice was administered according to the social position of the accused, not in accordance with the nature of the crime. The chiefs and priests endeavored to uphold some form of law for selfish ends, and by this means it is thought the more advanced legal tribunal was established.

In the different species of animals we find parricide, infanticide, cunning, deceit, treachery, malevolence, and theft. Among the savage tribes the same conditions existed, and practices even more demoniacal.

To destroy an enemy was an essential part of barbarian glory. Crime as we think of it, was not known to the savage, but vengeance and vigilance were considered duties of equal importance.

From the lower animal to savage man, and from the latter to the enlightened, we find a vast field for thought and study, worthy of the profoundest minds. Even now as we are nearing the close of the nineteenth century with our higher civilization, this feeling of vengeance has a deep root in our natures. The mob cries for vengeance, justice is too slow or is dethroned. Their insatiate taste for blood must be gratified. The method and form of execution is of secondary importance. It may be by the bayonet or bullet, by hanging or garrote, or by mutilation of the body until life slowly becomes extinct, a sort of atavism to savagery.

More than once, to the shame and dishonor of our own State, has this reign of mob violence been gratified by the explosion of public feeling in the form of lynch law. This has been termed with some truth, "an era of cranks." The HOLZHAYS, GUITEAUS, PRENDERGASTS, are types of men in an abnormal condition, perhaps psychical or physical, or both. They have a morbid impulse to gratify certain vicious and inhuman desires, moral force being wholly in abeyance.

The *genus homo*, from a scientific stand-point, exceeds all others in the commission of crime.

Man, unlike the lower animals, destroys not only his own species, but everything else his fancy or pleasure may designate, with remorseless persistence, not infrequently subjecting to slavery that which he finds no pleasure in for his stomach. The vast armies of modern Europe (and militancy in general) cultivate sanguinary instincts which find no place in our higher moral intelligence. War, studied historically, is murder on a large scale—universal homicide.

## CRIMINAL EMBRYOLOGY.

In order to appreciate the trend of our ablest criminologists in Europe and America, it becomes necessary to give the *status praesens* of their position on the subject. Some very able penologists believe that the brain of the criminal is different, in some particulars, from that of the normal. The hardened criminal possessing psychical deviations which result in physical changes and the essential reason of abnormal brain action is due to abnormal brain structure, and that the criminal holds the same relation to crime as the epileptic to convulsions, the latter undergoing physical contortions and mental agonies involuntarily; the same being true of the criminal, the manifestation being psychical. Men of very extensive observation and learning, and who have made a life study of criminology, believe in a distinct brain for the criminal, known as criminal brain, while there are others much more conservative, and hold that the criminal commits crime because of his environment. GEORGE ROUNDS, secretary of the U. P. Association, having made an exhaustive study of seven hundred criminals, reports that about five hundred committed crime because of defective early training and associations, and not on account of abnormal brain development.

In order to have an intelligent conception of the brain relation to crime it is necessary to remember a few points in the structure of the brain and nervous system. The central nervous system is composed of the cerebral hemispheres, the cerebellum, medulla, and spinal cord. The whole is made of gray and white tissue and all covered by membranes. One of these membranes containing blood-vessels, nerves, and lymphatics dips down between the convolutions. In lower animals and in the fetus the convolutions are few and shallow, but in man they are numerous and dip down deep into the brain structure. Brain work will increase the sulci and make the brain more powerful, just as exercise will develope the muscle. The gray matter is capable of independent action. It is the seat of thought or all psychical function, and connects the nerves of sensation and motion. There are different centers in the brain—one for motion of the arms, one for the lower extremities, and others for all the special senses as well as respiration. To the tyro in the science of psychology, it is apparent that slight injuries to the brain at the seat of these different special functions must interfere with the normal action psychologically, together with sensation and motion.

Of the two membranes covering the brain, one is attached to the inside of the skull, the other to the brain, and being very full of blood is often the seat of inflammation and consequent pathological deposits which result in changes that are lasting, and often consequences that are worse than death.

From a medical stand-point a disease of the brain or its membranes is a cause for the greatest anxiety, as to its lasting effects on the seat of reason. Every rose that opens its delicately tinted petals to the morning sun is formed after a certain general plan, along with the blades of grass, the leaf, the vine, and the massive oak; yet no two of any one species are exactly alike. So with the noblest of God's creation, man. Among the vast population of the earth no two are alike. What a wonder to contemplate. One heart, two lungs, two kidneys, one liver, one brain, the same in number, but differing in some particular whereby they can be distinguished among different individuals.

In the human body there are about twelve pounds of blood containing millions of corpuscles, but no two beings having the same number, and so on. In the evolution plan, nature allows great latitude of deviation without going beyond a certain limit or boundary.

Some of the questions suggested to the thinking mind along this line are—First, What are the essentials in the make-up of a normal being? To establish the abnormal points in a criminal we must not only study him in a stage of full development, but trace down through youth, childhood, infancy, and even further, all through the different periods of development in embryo, from the time the blastodermic membranes are formed and broken up into cells, and their ultimate evolution into the different organ tissues and manifold structures which are essential to a fully developed being. Not only must there be sufficient building material during the embryonic period, but the mysterious periods. All through the transition period of development, from the end of fetal life, when bone, muscle, nerve, brain, and all the organs of special senses are complete and coördinated by one great central nervous system, all organs and parts perform their functions in harmony. In order to have a perfect being, there must be nothing to cause an arrest in the formation embryonic period. The different parts of the brain must be developed simultaneously or the functions will be seriously perverted, especially that of reasoning, with results which time only may determine.

Our recent studies in the histology of the brain, and the improved instruments and methods of investigation have demonstrated pathological conditions of the organ which were not formerly known and understood.

Notwithstanding the advancement made in brain anatomy in the past, and also all light that may be thrown upon the functions of this organ in the future, there are but two causes that produce deviation from the normal, namely, arrest of development, and perverted nutrition—as the products of inflammation and growths causing pressure on some part of the brain substance.

## LATENT DISEASED CONDITIONS.

Syphilis must be recognized as a most formidable disease, often hidden in many derangements of the brain function. **Lombroso**, of Italy, and **Jacobi**, of the United States, have directed their studies along this line, resulting in the throwing of more light on a subject before but little understood. The history of this is inseparable from the history of the human race. The question of congenital or hereditary syphilis is one of great interest indeed, for the reason of its insidious action and far-reaching effects.

Syphilographers are now agreed that a syphilitic mother will bear a syphilitic child without the infection of the husband, and some believe that a syphilitic father will beget a syphilitic child, the mother escaping infection. As an exception, an interesting case is reported in the *La Reforma Medica* touching upon this point, of a woman twenty-six years old of sound general health who was married to a coffee-house keeper by whom she had two healthy children. In May, 1886, her husband left her to go to Marseilles, on business, she being then two months pregnant. He returned November 14, of the same year infecting his wife with this disease which he had contracted while away. The primary lesion of syphilis appeared soon after with other manifestations, all pointing to this infection virus. The child was born fifty-two days after, and soon gave symptoms of this disease.

This disease made its appearance in Europe as early as the fifteenth century and some of the symptoms were not unknown to the laity. The clown in Hamlet, in answer to the question how long a man will lie in the earth ere he rot, says, "he will last eight or nine years, if he be not rotten before he die, as we have many pokey corses nowadays that will scarce hold laying in."

**Abercrombie**, in his first great medical work which was the authority for many years (appearing in 1828), never once mentions syphilis, though the Japanese recognized it two thousand years ago, and medicated all stages with mercurials, a remarkable fact for consideration.

In 1869 **Virchow** pointed out the alterations in the brain which occur in constitutional syphilis, and at the present time, based upon the most reliable authority, we stand in awe when we are confronted by the fact that of all brain diseases, syphilis is responsible for about eighty per cent. of all cases which occur between the ages of twenty-five to forty years.

**Doctor Moncorvo**, who practiced in Rio de Jeneiro extensively, stated in a paper before the International Congress at Washington in 1887 that he believed hereditary syphilis furnishes sixty per cent. of infantile diseases, and is a most frequent cause of infant mortality.

That syphilis is a most frequent cause of disease of the nerve centers, with all the disastrous consequences to sensation, motion, intellect, and will power is a fact well known to every medical man of experienced observation.

The cerebral changes produced by syphilis frequently invade suddenly without external manifestations. The membranes and the brain substance itself, together with the blood-vessels, are rendered abnormal. Little growths called vegetations appear on the membranes as they dip down between the convolutions and also in the blood-vessels causing softening, abscesses, hardening and tumors. All these changes are a permanent danger to the mind, reason is dethroned and the cause understood in very many instances.

A very instructive case is reported by **Doctor Lyman**, of Chicago, of a clergyman who had been a missionary for years. Returning to his native city he forged a friend's name, murdered his wife and then killed himself. A post-mortem examination was made by **Doctor Lyman** and upon the meninges were found little growths which interfered with its normal action and changed the man into a murderous fiend.

**Doctor Jacobi** reports a case which came under his own observation, of a middle aged man who had quite a reputation in New York as a street preacher, edifying his audiences, and after these daily confessions and prayers he would return to his home and maltreat his wife and children. He was arrested and sent to Blackwell's Island for the above offense. His condition was looked into closely. Appreciated anti-syphilitic treatment was given him, and he was cured of his wild vagaries.

This disease is also a pregnant cause of epilepsy, of mania, and melancholia. It will cause permanent changes in the eye, impairment of memory, depravity of character, and depression and excitement. There is no organ of the body that is exempt from the ravages of this disease. That many criminal acts are due to syphilis, either hereditary or acquired, is pretty well established.

It has not been the object of the writer to give a complete analytical disquisition on the far-reaching effects of this disease in relation to the production of crime, but to impress upon the future thinkers and moulders of public opinion the importance of not underestimating the responsibility of this very grave disease for many of the criminal acts often attributed to other causes.

We have not yet arrived at that degree of discrimination whereby we can say definitely such a criminal commits crime because of some physical defect of brain either acquired or hereditary. The degree of crime and grades of criminals from the murderer down to the thief require individual study. They each must be studied according to the nature of the crime committed, and also as to repetition, or what is known in criminal parlance as "recidivists." (This word, from the French, signifies a backslider, or one who has again fallen into crime, or a second or a third termer).

## NEW METHOD OF IDENTIFICATION OF CRIMINALS.

This method is based upon ten anthropometric measurements, first introduced by Alphonse Bertillon in December, 1879, in France, and is known as the "Bertillon System of Identification of Criminals." Before giving a brief description of the method a few words of explanation as to its general utility is necessary.

First, when an habitual criminal is brought to justice for crime he is very apt to conceal his true name, and if he has taken precautions in advance, to borrow the name of a person who has never been convicted. He thereby escapes the increase of punishment incidental to a second offense, an increase more or less common in every country; either through imperative proscriptions of the law, or through the latitude left to the judge to let the punishments fluctuate between two extremes.

The re-arrest of the recidivist prevents him in a majority of cases from giving his true name, and he is known to the law under many aliases. By giving his true name he would thereby expose himself to renewed and extreme criminal prosecutions. Criminals often make use of fictitious names, and give preference to the name of an honest person. Instances are known of recidivists, who, when arrested under a new charge, dare to assume before the court the names of persons whom they had previously robbed or defrauded, and whose exact social station they had every opportunity to learn from testimony previously given in court.

This system has become international, and during last year Major McenClaughry, chief of the police of Chicago, equipped himself with the resources of this system of measurements, and prepared for the influx of international criminals which flocked to the exposition of 1893.

The Bertillon system like almost every other scientific advancement, has met with not only lukewarmness, but opposition by many even in this country, among those who ought to be the first to put it into operation. Its utility has been demonstrated by its founder in France. By the detection of Parisian criminals, the exactness of the system becoming known to recidivists, they have gone to countries where this system is not in operation, consequently the list of professional criminals has been very much reduced. Belgium, Switzerland, Russia, Sweden, Norway, Denmark, Uruguav, Argentine Republic, and provinces in Brazil are now using it. It is in constant use in the Detroit House of Correction, under the supervision of CAPTAIN JOSEPH NICHOLSON. There is a similar institution in Illinois, now presided over by a distinguished practical criminalogist, MAJOR McCLAUGHRY.

### CRITICISM OF PROCEEDING.

The usual accompanying descriptions such as "round chin, full face, color of the eye and hair, height and weight, with a general description given with the photograph," have been found inadequate to detect criminals by such methods as have heretofore been practiced, and such meagre details, even among experienced anthropologists, have proved very unsatisfactory. The photograph is probably the most preferable in the description, but it solves only a part of the problem, and a facial disfigurement is so easily practiced that even the utility of the photograph as a means of detection has been found very inefficient.

In ten years the police of Paris have collected in this gallery the photographs of one hundred thousand persons. It is not possible after every arrest to run over, one after the other, and scrutinize closely, these one hundred thousand photographs.

The system of measurement, has been found in theory and practice exact. The anthropometric measurements consist of the notation of various bones, the dimensions of which remain unchangable on the same subject, and which are regarded in a uniform way. These are principally the height in a standing erect position, and in the sitting position. The length of the left foot, the individnal inclining forward and putting all his weight on one side. The outstretched arms from the tips of the fingers, the length of the ring finger of the left hand from the second joint to the tip. Length of right ear, length of head from base of the nose to the back of the head, and the width of the head, measuring between the temples. Also the color of the eyes is observed. Some of those measurements are more exact than others. The instruments of measurement are so precise and exact in recording that very little experience is required for using them and recording the measurements as indicated by the instruments. Extraordinary as it may appear the diameter of the head can be measured in the easiest possible way to within one millimetre. Experience demonstrates that the length of the head of different individuals may vary more than three centimetres or thirty millimetres. Moreover, it is well known that the length of the head can in no way be influenced by the will, and that the skull of an individual that has attained his twentieth year, is thereafter but imperceptibly changed or developed. The same cannot be said of the measurements of a man's height which decreases from his tendency to stoop with advancing years. The subject can also practice trickery to the possible extent of two centimetres, with a fair chance of deceiving the operator. The diameter, the length of the middle ring finger, the foot, et cetera, do not vary more than three centimetres, but can be measured exactly.

The maximum width of the head is measured from one parietal bone to the other, the proceeding being similar to the measurement of the length.

Measurement of the middle finger of the left hand is also exact, and admits of no trickery and is unchangeable from adult age to old age. It is taken by bending the finger at right angles with the back of the hand, not losing sight of the undue length of the finger nails in certain individuals.

In measuring the left foot, the subject should be barefooted, the same as when his height is measured. To evade all possible trickery, have him stand on his left foot only with bended knee. This indication is not considered quite as good as that of the middle finger, but can be ascertained exactly within two millimetres.

The maximum length of the outstretched arms is ordinarily believed to be equal to the measurement of the subject's height, but it has been found to surpass it in exactness by from five to twenty centimetres.

Color of the left eye. For this there has been adopted a special notation which gives us seven categories. This requires a few days practice and close observation in order to correctly describe the peculiarities in each eye. The following descriptive features are to be noted:

(1) Impigmented, or iris blue, azure, or slate colored, with a concentric pupillary areola, more or less pale, but without the yellowish pigmentation.

(2) The iris shading more or less into blue, or slate color, but provided with a light yellow areola.

(3) The same shade with a fuller, somewhat orange colored, areola.

(4) The iris has more or less greenish reflections with a chestnut colored areola.

(5) Same shade with a dark maroon areola,

(6) In this class the maroon is not grouped as an areola around the pupil, but spreads over the entire surface of the iris, showing only some greenish yellow spots (irisations).

(7) The eye is entirely maroon.

It has been urged against this system that the infinite extension of classification would be too difficult to regulate. That good results may be obtained with the collection of thirty thousand measurements, but would not be possible when the collection amounted to three hundred thousand, or even one million, and that they must be prepared for everything. Bertillon, in answer to this criticism, says that the record of these ten or twelve measurements combined can be divided into three categories, namely: small, medium and large. If the measurements exceed one million the calculations are easily verified. Instead of commencing our classification by stature or length of head, nothing would be more simple than to begin from the date of the birth to about ten years, without varying a point in any way. In this box we would place the people born from the beginning of the century to 1829. Then from 1830 to 1839; 1840 to 1849; 1850 to 1859; 1860 to 1869, and so on: Or, in a hundred thousand criminals, which is a large number, they could first be classified as, say, forty thousand females and sixty thousand males, twenty thousand of them being in the large grade of measurements, twenty in the medium, and twenty in the small.

It is necessary in order to popularize this system and bring it into general recognition, to have a central bureau, say at Washington, where the records and measurements taken in the different penal institutions of the United States, can be sent, classified as above stated, and when a recidivist is arrested under an alias, and the detectives and legal authorities are uncertain as to his identity, his measurements can be taken when arrested and sent to the central bureau, and if he has been previously arrested, and measurements taken, the exact copy would be found on file and proved beyond doubt as his record as a criminal.

To demonstrate the utility of this, **Major McClaughry** took the measurements of several distinguished citizens of Chicago according to the **Bertillon** system. Those gentlemen presented themselves in the bureau for measurement to the originator of this system, and the measurements were compared with those formerly taken before leaving home, and were found to be almost exactly identical, proving beyond a doubt the exactness and correctness of this system beyond all others heretofore practiced.

## THE INSTITUTIONAL CARE OF THE INSANE.*

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The standard of governmental provision for the care of the defective and dependent classes may be taken as a gauge of the civilization of any state.

Of these classes requiring the care of the state, aside from the provision made for protection against and punishment of the purely vicious and criminal classes, we might naturally expect to find the earliest institutional provision for the care of the insane as being not only of the most helpless, but also for the protection of the community, by reason of their insane delusions and impulses so commonly manifesting their insanity in violence and in crimes against persons and property. Historically we do not find this to be the case, but on the contrary we find such provision to be a later development of governmental benevolence. Doubtless evolution in this respect has been orderly, if apparently not what would *a priori* have been expected.

The study of the origin and development of institutional care of the insane is interesting as illustrative of the advancement of humanitarian civilization; that is the civilization of benevolence and good will to men as implying something higher than a high degree of advancement in the mechanical or the so-called fine arts, or even in scientific knowledge, in all of which respects the ancient civilizations and some heathen civilizations of the present age have shown great acquirements.

It is claimed that the earliest institutions for the care of the insane, and the only ones so far as known antedating a comparatively late period of the Christian era, existed among the ancient Egyptians.

This is an interesting fact, for in the neighboring land of Judea with whom commercial intercourse must have been intimate, and to which the children of Israel are supposed to have carried the learning of the Egyptians, even in the time of Christ the insane were driven from the haunts of men and compelled to wander in the fields and to dwell in tombs.

We may form various conjectures as to the motives which led to the institution of these asylums among the Egyptians. It may have been protection against dangers to persons and property from their running at large, or it may have been economy in their support, or it may have been prompted by a superstitious regard for this class of individuals which seems to have existed in all ages among the ignorant, even down to the present. Even in Judea the idea seems to have existed that they were possessed of devils or evil spirits, and that this idea has come down to the present time is shown in the common use of the term applied to them, as possessed, or it may have been for purposes of scientific study and treatment of these cases, for we have reason to know that the medical art at least in some of its branches was well advanced among this people.

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*Address to Graduating Class of Attendants at the Eastern Michigan Asylum, Pontiac, February 26, 1894.

The leading motive was, however, most likely a commercial one and they were in the nature of sanitariums for this specialty. Specialists there were in ophthalmology, and it is not improbable that a high degree of skill had been developed in this branch, ophthalmia and resulting blindness in all ages and down to this day being a prevalent condition among the inhabitants of that land owing to local conditions especially productive of it, and if ophthalmology had become a specialty it is likely that there were specialists in other branches.

Whatever knowledge had grown up among this people and whatever skill had been acquired in the treatment of disease was the exclusive possession of a priestly order and was by them sedulously guarded against the profanation of coming to the knowledge of those outside this order, entrance into which was probably difficult and expensive, and hence this knowledge which could leave no monuments behind to mark its status, perished with the rest of the civilization of the country.

Whatever degree of skill may have existed in this specialty of ophthalmology, it is clear that it could not have approached that under our Christian civilization of this day, where restoration to sight of one born blind, by removal of a congenital cataract, is not so rare an occurrence. Had such skill existed the possessor of it would certainly have been regarded as divine, and the knowledge of such a miracle must certainly have extended to the neighboring nations with which this one was in intimate commercial intercourse.

Such works were to be the credentials of the promised and expected Messiah. So when John sent his disciples to Jesus to ask whether he was the "one to come or look we for another," Jesus simply replied, "Go and tell John what things ye do see and hear, how that the blind see, the lame walk, the lepers are cleansed," et cetera, and in that same hour he cured many of their infirmities and plagues of evil spirits, and unto many that were blind he gave sight, and we are told that the rumor of him went throughout all Judea and throughout all the region round about.

So to the incredulous and unbelieving multitude, the blind man restored to sight replies, "Why, herein is a marvelous thing that ye know not whence he is and yet he hath opened mine eyes. Since the world began was it not heard that any man opened the eyes of one that was born blind."

To return to our subject, from which we have in some measure strayed, the origin and evolution of insane asylums: though asylums for the insane so-called, date back only from the present century, yet we find that institutional or organized care for the insane, the germs of the present systems in civilized countries, date far back in the Christian era. Of course before there were hospitals for the insane there were general hospitals, specialism indicating an advanced stage of evolution, and betokening, if not indicating as already existing, increased knowledge and skill in care and treatment. It is probable that the earliest special hospitals, if not the first institutions for the care of the sick, were leper hospitals, which disease it is stated was the scourge of Europe in the middle ages.

During the crusades there came into existence semi-religious, semi-military organizations, as the Knights Hospitallers and Teutonic Knights, under religious vows, to care for the sick and infirm, under whose supervision institutions devoted to the purpose existed.

And, of course, under the cardinal teachings of Christianity, and after the example of its founder, the great physician, and by reason of the fact that in its early days the two callings, that of the clergy and of medicine, were combined, or that the care of the sick belonged to the clergy, religious organizations and institutions multiplied for the care of the sick. Here, too, we find early results of specialist evolution in the separation of these two callings.

Among the earliest of such institutions of which we have knowledge and which has continued to the present day, in which insane were cared for is the Hotel Dieu, of Paris, supposed to have been founded in A. D. 660 by the Bishop of Paris. This was a general hospital which when first founded received not only medical and surgical cases, but the insane also.

One of the oldest special insane asylums in the world is the Maison Royale De Charenton, built at a very early day for the special care of insane patients. Other ancient institutions of this kind are the Hospice De La Salpetriere, of Paris, founded in the seventeenth century, for indigent and lunatic females. This institution is the one by the opportunities of whose clinics, in nervous diseases, the distinguished DOCTOR J. M. CHARCOT has become, in our day, world renowned. Another old institution of Paris is the Hospice De Bi Cetre for indigent and lunatic males.

Perhaps the most renowned and widely known, among English speaking peoples, at least of ancient asylums for the insane, is the Bethlehem Hospital, of London, founded in 1246 by SIMON FITZ MARY, one of the sheriffs of London.

What has served to make this particular institution widely known is the corruption of its title to that of Bedlam, and the application of this term in a general way to all institutions where the insane were congregated, and hence the name coming to signify and designate any place of uproar and misrule, and in such popular use and application of the term what a lesson is conveyed, and what we may learn as to the advance made in the management of insane asylums, and the treatment of inmates, and this change, like many another in the medical art, may be claimed for this generation. Indeed, as I before stated asylums for the insane, so-called, date no farther back than this century, and it is only since the time of specialism in the treatment of the insane that all great advances in adaptations and provisions for this class, in management of the institutions, and treatment of the inmates, has been made; and that this term implying something opprobrious, something dreadful and inspiring, fear and terror has become obsolete as a designation of these institutions; but still lingering in the popular mind it will take another generation growing up with newer ideas and greater knowledge to entirely banish this popular odium.

The few institutions to which I have made reference by no means include all the old institutions of this class, whose origin, development and circumstances connected with their history would be of general interest, but they are enough to show when the care of the insane began to be specialized.

Just as we observe in the so-called evolution of all organisms, animate or inanimate, at each successive higher stage of development, nature, so prolific in ideals, branches out into multitudinous varieties, species, genera and orders; or as each new discovery or application of the materials or forces of nature suggests new uses and new inventions, so each advancement in medicine or any of its collateral and assistant branches, nursing for instance, or in the care of the sick, just as surely leads to other and larger improvements, and this tendency, at this time with constantly increasing momentum.

A recent writer has asserted that the advances in abdominal surgery within the last two decades have been greater than for centuries before. He might with equal truth have included the surgery of all the cavities of the body, as the thoracic, and of the head, and in fact of surgery in general, in which the advances, though not so generally conspicuous, have done more to the saving and prolongation of life, to removal of suffering and rendering the hopelessly crippled and deformed self-helpful than the few cases, in comparison, of the opening of the cavities and removal of tumors and other foci of disease.

What, then, is it that has led up to such recent advances? It has not all come by sudden jumps and spirts as some might suppose. Even those events which constitute notable epochs in medical history like those of Ambrose Paré's application of the ligature to severed arteries, or Jenner's discovery of vaccination, or McDowell's first and successful opening of the abdominal cavity for an ovarian tumor, which seem to us the results of an inspiration, have doubtless been the logical suggestions from previous advances, and they have come by successive steps, each new venture suggested by previous success in other lines, and success made possible and probable by other advances in medicine.

So much has been written and said of late years, in medical journals and medical societies, of sepsis and antisepsis that the subject has become almost trite *ad nauseam;* and I do not know that the subject would interest any except an exclusively medical assembly, but as it concerns those who will have care of the sick and of the subjects of surgical operations, I may be permitted to say this much to show in what line some of the greatest advances have been made. The whole world around, above and beneath, within and without us, earth, air and water, is now known to teem with organisms, microbes, so-called, invisible except under the very highest powers of the microscope; and others not even thus revealed except under artificial methods devised by the subtlest ingenuity of specialists in this branch of science; and an infinity of others not even thus as yet revealed to the eye by the acutest ingenuity but of the existence of which we are persuaded by analogies and other sufficient reasons. Though the most of these are benign to man, others benign under ordinary conditions, yet they may become pathogenous, that is, productive of disease under certain conditions; others are at all times pathogenous, that is, the cause of disease. The diseases which the physician is called upon to treat are very largely of the class of germ-diseases; and the greatest danger to the surgical patient arises from septic infection.

While the physician is called upon to treat his patient who has already become infected, the problem of the surgeon is to prevent this infection, the most imminent danger lying in an open wound. The truth of the ancient and trite adage, "prevention is better than cure," is in no way more impressively taught than in the success which has attended upon surgery in this respect and thus made such advances possible. But while the advance in surgery in this respect is the more obvious and conspicuous, the therapeutics of the physician have not yet kept pace with his knowledge of the causes and nature of disease; yet the glory of the physician lies in the prevention and strangling of epidemics of infectious diseases.

Is it not greater glory to have kept the cholera from entering this country the past two seasons than any amount of success which might have attended its treatment when once running riot over the country?

The advance which has taken place in the medical art, in its general sense of embracing all its collateral branches, is only a measure of what has occurred in all applied science within the past few decades; and so intimate are the relations between this art and all branches of science; so necessarily and constantly are they made subservient to the physical welfare of man in some manner, that all other advances must in some way, directly or indirectly, contribute to the advantage of the medical art. We shall by no means attempt to refer to all such contributions. We may, however, refer to the great advances in organic chemistry both in its relations to human physiology in health and disease, and to the wonderful additions made to our materia medica and consequent therapeutic resources; medicines of such positive efficacy in many and varied abnormal conditions and their physiological effects so well studied that many of the old remedies that had held their places in the pharmacopoeia for ages have almost become obsolete and in many respects the practice of medicine become completely changed within a generation, so that it requires constant study and application to keep up with the procession. The knowledge of some of the more common and well established resources of the medical art become so well known to the popular intelligence that it requires no apology to refer to this subject in addressing those so intimately connected with the healing art as you who have devoted yourselves to the care of the sick and insane; and, therefore, to illustrate and emphasize what I have stated in regard to even comparatively recent changes in medical practice, I shall quote the teachings, in a few particulars, from what was the standard text-book and probably the most implicitly and widely accepted authority on practice in the English language, even less than thirty years ago.

Says the teacher: "I must not conceal from you my own persuasion that, in the early periods of acute inflammation of the encephalon, if the mercury comes, in a short time, to produce its specific influence upon the gums, a great change for the better will often be produced."

And again, in pleurisy: "Mercury from its well known power to check the effusion of coagulable lymph is especially indicated, of course it is to be given with a view to its specific influence on the system. By the early and vigorous adoption of these measures the inflammation may generally be subdued in no long time."

And again, in peritonitis: "In speaking of the mode of cure, I have again to repeat, *mutatis mutandum*, the grand remedies for inflammation, and partioularly for the adhesive inflammation proper to serous membranes: blood-letting and mercury. It is extremely desirable, in these cases, to obtain as speedily as possible the specific influence of mercury upon the system." And thus I might go on repeating similar examples of the authoritative teaching of but a few years ago, particularly in the inflammatory diseases, and of one whose work on practice based upon a lifetime's clinical experience in one of the largest hospitals of London, and of an immense private and consultation practice, enabled him to give to the profession his volume, a monument of learning and a compendium of the wisdom of ages.

Who now finds it necessary to produce salivation in inflammatory diseases, and how seldom is blood-letting resorted to? This your own observation in these hospitals may answer. But why this change? Simply because pharmaceutical chemistry has placed in our hands the remedies for accomplishing all and more than was accomplished by those methods. Nevertheless those teachings embraced what was sanctioned by the best of wisdom of those days.

Perhaps the return swing of the pendulum will bring us back again to the more common use of these now almost discarded remedies, and particularly to that of blood-letting in suitable cases of which nature so frequently teaches us not alone the innocuousness but the positive beneficial effect when she has herself brought it on by epistaxis or by some other channel in acute diseases. The class of cases received into asylums are not those in which this measure is likely to be admissible. But my persuasion is that fewer cases of irremediable disease would reach the asylums if this measure was oftener resorted to in the early stages of acute inflammatory diseases.

Once more, to revert to important discoveries which have been the particular cause of the great advance in surgery, I may remark that not a few surgeons are still living who were in practice when anesthesia by chloroform and ether was introduced.

The younger members of the profession, always familiar with its use in operations, though they may conceive how impossible would be the abdominal surgery of the present day without its use, can hardly realize the difficulties to the surgeon, to say nothing of the agony of capital operations without it to the patient and his friends. Without anesthesia the mortality from shock alone in abdominal surgery would deter the surgeon from the so frequent repetition necessary to acquire familiarity and skill in this branch of surgery, and without it all other advantages arising from modern antiseptic treatment of operative wounds would be of little avail.

So invaluable a gift was this to medicine that the use of it at once became general wherever commerce had penetrated, as fast as knowledge could travel, and yet with this universal use, and though individual surgeons have had their ten thousands of administrations of chloroform, we do not know to-day why an occasional sudden death occurs under its use. Of course, sudden and unlooked for deaths may at any time occur. Fear may paralyze the heart. Some too violent impression may paralyze the celiac plexus, the abdominal brain, and suddenly the silver cord may be loosed, the golden bowl be broken, the pitcher broken at the fountain, or the wheel broken at the cistern.

The last special advance to which I shall refer, and one of immeasurable importance in contributing to modern success in medicine and surgery is the modern innovation of specially trained and educated nurses and attendants for the care of the sick and the insane. So widely spread is the recognition of the advantages, the importance, even the necessity of such care, for the successful treatment of cases, that hospitals and asylums are providing for their own requirements and also that of the public by the systematic training and educating of those entering this calling. The most successful operators will often make the condition of operating the engagement, on the part of the patient, of the surgeon's specially trained nurse; and the physician generally encourages and insists wherever practicable in serious cases of disease, upon the engagement of a trained nurse for the care of the case. And yet it is only within a comparatively recent period that this want has been recognized, and that systematic training of nurses and attendants has been entered upon in institutions for the care of the sick and insane. As I learn from an address of the medical superintendent of this asylum, DOCTOR C. B. BURR, read before the International Congress of Charities, Correction and Philanthropy, Chicago, June 12–18, 1893, "The movement to establish training schools for attendants, and to emphasize the hospital idea in American asylum work was successfully inaugurated by DOCTOR EDWARD COWLES, superintendent of the McLean Hospital, Somerville, Massachusetts, in 1882." I have quoted DOCTOR BURR's own words in this statement. From this we may see how recent is this movement in this country at least; and that the advantages of this movement were recognized, may be seen from the rapidity with which the idea was taken up and the example copied by similar institutions over the country.

From another paper by DOCTOR BURR under the title "What Improvements have been Wrought in the Care of the Insane by means of Training Schools," published in *The American Journal of Insanity*, we are informed "That a very large proportion of graduates of training schools attached to asylums, remain in asylum work," yet, as the writer observes, the number of such graduates engaged in private nursing and in general hospitals is peculiarly gratifying." Yes; for the preparing of skilled attendants for asylums alone is by no means all the good accomplished. The benefit to the public by preparing skilled nurses for private employment is very great, and to you who have thus prepared yourselves, even though you may in after years go into other avocations or into the mere quietness of domestic life, you will find the knowledge and skill here obtained in the curriculum of studies which you have gone through, and in the practical experience gained within these walls of inestimable value, and yourselves become, each a means of education to others in this most important and commonly so lamentably wanting branch of knowledge.

Let this truth be impressed upon the mind of each of you, that whoever shall rest contented with present acquirements, though indoctrinated with all the truths and principles of his calling up to its present highest state of advancement, thinking there is nothing more beyond to be attained or worthy of striving for, will soon be found a laggard in the profession, a piece of stranded driftwood on the shore of the stream, a sediment gravitating to the bottom instead of floating on the surface of the current.

The fact that you have chosen to pursue and finish the curriculum of studies, the better to prepare yourselves for your avocation is guarantee that such is not the fate that awaits you. Those who are craving for knowledge, zealous of study, and conscientious in duty in youth are not likely to change their habits and their nature with advancing years. On the contrary the taste and the habit will grow as it is fed. The passion for study and the longing for knowledge is not different in this respect from other appetites and passions which occupy the heart and mind of men.

It is, perhaps, to some extent, an impression with the younger men of the profession that advanced years is synonymous with fogyism and routinism, that the seniors in the profession must have somehow necessarily fallen behind in the knowledge of the day. This perhaps arises naturally from a conservatism born of their observation of the many exploded theories and discarded measures consigned to oblivion which had been heralded with all the faith and enthusiasm of inexperience.

The records of medicine in every age teem with such examples productive of the disappointment of misplaced confidence, and the deceitfulness of ill-founded expectations.

If then your ambition has been to gain a thorough preparation for the care of the sick and insane, and opportunity to master the knowledge of all new ideas and measures to that end, where, I may ask, will you find a more appropriate field for that purpose than in such institutions as this? Besides, the acquisition of this knowledge is by no means all, perhaps not even the most valuable lesson to be learned in such a field.

I can conceive of no more impressive object lesson anywhere presented than in some of these wards of the results of defective and wrong training and education, of bad and demoralizing habits, of the ultimate degrading results of vicious lives; and then all this contrasted with the benevolent care of the State in the most generous supply and elaborate arrangement of everything necessary for the comfort and restoration, so far as possible, of these unfortunates. Also the self-devotion and consecration to duty of those having the care of these subjects.

What a contrast presented between the principles and results of good and evil. The embodied representation of the eternal contest of ORMUZD and AHRIENMAN, that is the contention for supremacy between good and evil.

Then, what opportunities for the observance and study of the vagaries of disordered intellects; and what opportunities, what necessity for the cultivation of the cardinal virtues of self-government, self-restraint and self-denial. How invaluable such opportunities and such a training. For, "greater is he that ruleth himself than he that taketh a city."

# CORRESPONDENCE.

## PRAGUE LETTER.

BY COLLINS H. JOHNSTON, A. M., M. D., GRAND RAPIDS, MICHIGAN.

FIFTH PAPER.

### MORTALITY FROM PUERPERAL FEVER IN PRUSSIA.

OVER six thousand women die annually from puerperal fever in Prussia, this being almost one per cent. of the cases of confinement taking place outside of lying-in hospitals, while the mortality from this disease in the Dresden Frauenklinick is only one-tenth of one per cent. This relatively enormous death-rate in private practice is explained in two ways: first, since the introduction of asepsis into surgical practice obstetrical operations have been made much more frequently than formerly; and second, ninety-four per cent. of parturient women in Germany are attended by midwives who are unable to comprehend the great principles underlying asepsis and antisepsis, and whose technique is correspondingly faulty. The midwives of Germany save the doctors the many weary hours of waiting which their American brethren are compelled to waste at the bedsides of women in labor, but it is done at the expense of many lives.

## THE APPLICATION OF FORCEPS IN DELIVERY.

The large majority of the patients to whom physicians are called are primiparæ, or multiparæ, with contracted pelves or other anomalies. These cases being often tedious and difficult, and one or more midwives frequently having exhausted their resources in promoting the birth, forceps are often required, and statistics show that the doctors use forceps in almost one-half of their cases, which represents about three per cent. of all labors taking place. This is really but little oftener than forceps are used in the great obstetrical clinics, for the publications of the maternities at Berlin, Vienna, Leipsic, Dresden, et cetera, show that forceps are used in about two and a half per cent. of all cases. Considering the fact that but few if any of the German clinics have so large a percentage of contracted pelves as the Dresden clinic, it is evident that Leopold restricts the use of forceps as much as possible, and of two hundred and two forceps deliveries the last eight years, only *nineteen* have been *high* operations. Little attention is paid to the number of hours a woman is in labor, or to state it a little more accurately, a prolonged second stage of labor is not in itself an indication for the application of forceps. I saw one woman, a primapara, struggle away two days and five hours after the membranes had ruptured before forceps were applied, the operation being then indicated by the setting in of irregularity of the fetal heart beat. Forceps are never applied to save time, or to humor a nervous or hypersensitive patient; they are used only when some positive, well-defined indication is present.

Among the recognized maternal indications are weak pains, which cannot be increased by the application of hot towels to the abdomen, massage, et cetera; great rigidity of the soft parts, occurring most frequently in primiparæ; and general conditions such as consumption, pneumonia, fever, eclampsia, and hemorrhage. A contracted pelvis is rarely an indication for forceps. The contraction is almost invariably at the brim, and in case the head does not enter, version, symphysiotomy, Caesarean section, or perforation are preferable. The fetal conditions demanding rapid delivery are a weak or irregular heart, beating over 160 or under 110 times a minute; rapidly increasing caput succedaneum; a strong umbilical souffle, which Leopold says is always due to pressure upon the umbilical cord, and consequent impairment of fetal circulation; and discharge of meconium, showing relaxation of the sphincters and general debility on the part of the fetus.

Before applying the forceps Leopold insists that the os must be *completely* open; the child's head must be at least in the middle of the pelvis, with the sagittal suture oblique, and the small fontanelle forwards; and the mother's conjugate vera must never be under eight centimeters in length. When a child is dead, unless the head is already at the pelvic outlet, a perforation is made, and the head extracted with the cranioclast. When a rupture of the perineum is imminent, an episiotomy is made, always during a pain, about midway between the tuberosities of the ischium and the posterior commissure, extending from one to two inches over the perineal surface, and the same distance upwards into the vagina. Incisions of less than one inch in length are of no use, and I have seen the perineum rupture in spite of them. These incisions are made on the side towards which the occiput is pointing.

The dangers attending forceps extractions are of course lacerations and hemorrhage, the former greatly increasing the liability to fever. In the German clinics twenty per cent. of forceps deliveries are followed by fever. The maternal mortality is estimated at from three to ten per cent., while ten per cent. of the children die young or soon after delivery. The statistics of private practice show that from twenty to twenty-five per cent. of the children delivered with forceps die from the operation. No obstetrical operation as performed here is attended with so much hemorrhage as a difficult forceps delivery. The loss of blood is much more than in a Caesarean section. This comes partly from the uterus on account of the atonic state which necessitated the use of the forceps, and partly from the serious lacerations in the cervix, vagina, and perineum, which are the rule with forceps, and the exception without them. All lacerations of any appreciable degree are repaired after delivery of the placenta. The suturing of a cervical laceration extending to the internal os, which of course is rare, is a very difficult and sometimes impossible thing after childbirth, and the control of the hemorrhage can be accomplished by tamponing the uterine cavity and vagina with iodoform gauze, and placing a bag of sand upon the abdomen, over the bleeding side, for compression. Or, the uterine artery may be surrounded with a ligature from the vagina.

The forceps are always applied as near as possible to the sides of the child's head, as the head is thereby not compressed so much, and lacerations are not so apt to be made as when they are applied directly to the sides of the pelvis. They are *never* used when a head is movable at the pelvic brim. In such a case, when the conjugate vera is not below seven centimeters, LEOPOLD is very fond of turning, as a child's head, which is really wedge-shaped, will pass through a smaller pelvis with its base, which is the small end of the wedge, first; and the experience of the last two or three years has shown him that he can hope to turn successfully with a vera of seven centimeters. For this reason he now does relatively fewer Caesarean sections than formerly. Many European obstetricians still do Caesarean sections, and some symphysiotomies, with a vera of seven, or even seven and a half. The following history shows very nicely LEOPOLD's application of scientific principles to obstetrics:

MRS. P. R., aged thirty-seven years; weight one hundred and fifty pounds; multipara; came to the hospital at 9:50 P. M., February 22. Has had pains since 7 o'clock; membranes not ruptured. Received immediately a rectal injection, a full bath and careful cleansing of the external genitals. Urine free from albumen. Pelvic measurements: between the anterior superior spines of the ilium, twenty-four centimeters; crests, twenty-six and one-half centimeters; trochanters, thirty centimeters; external conjugate, eighteen centimeters; conjugate vera, seven and one-half centimeters. External examination showed the fundus uteri to be midway between the umbilicus and ensiform cartilage; buttocks in the fundus; back to the right; small parts left; head movable in pelvic inlet; child's heart turns to the right, two inches underneath the navel, regular, 132. Diagnosis: right occipito-anterior position, end of ninth month.

11 o'clock P. M.: Internal examination—after a second cleansing of external genitals, and a vaginal injection of 1-4000 bichloride solution. Vagina wide; vaginal vault high; os size of a silver dollar, and through it are felt the unruptured membranes. High above in pelvic inlet is the movable head, but the sutures cannot be recognized. To prevent the premature rupture of the membranes and to aid in dilating the cervix, the colpeurynter was placed in the vagina and filled with ten ounces of one per cent. carbolized water.

February 23, 12:30 A. M.: Pains every ten minutes, moderately severe; fetal heart tones good.

3:10 A. M.: Moderate pains every ten to fifteen minutes; heart tones good, distinctly heard.

6:20 A. M.: No pains since 4 o'clock; heart tones good, regular; temperature 98½°; pulse 76.

7:15 A. M.: Internal examination—after removal of colpeurynter and giving of vaginal injection of 1-4000 bichloride; os dilated to the size of the palm of a hand; anterior lip of cervix edematous; membranes unruptured, and protruding; head still high and movable in pelvic inlet.

10:15 A. M.: On account of the contracted pelvis and the proportionately large head it was decided to perform version and extraction.

10:20: Narcosis begun; external parts cleansed.

10:28 A. M.: Vaginal injection of 1-4000 bichloride. The right hand of the operator was passed into the vagina, the membranes ruptured, the hand passed into the uterine cavity, along the back of the child, down the buttock and thigh, and the left foot of the child seized. The version was somewhat difficult on account of the umbilical cord passing between the child's legs. It was pushed back over the foot, and the extraction easily completed. The child breathed and cried immediately. A vaginal injection of two and one-half per cent. carbolized water was given, and the cervix carefully examined for lacerations, but none were found.

10:48 A. M.: The placenta was expelled by the patient; uterus well contracted; no hemorrhage. Two syringefuls of ergot were given hypodermically, and a vaginal injection of 1-4000 bichloride. No intrauterine injection was given, as is usual after operative labors, because the operation was done inside of the bag of membranes.

## THE TREATMENT OF PUERPERAL ECLAMPSIA.

The record of the Dresden clinic in regard to puerperal eclampsia is not a pleasing one, for the reason that most of the cases are brought in after the convulsions have begun, and the women are already infected and in a bad general condition. In one week we had four cases, three of which died. **Leopold**'s treatment for the spasms is hot baths of twenty minutes duration, followed by a hot pack, and morphia hypodermically, one-sixth to one-third grain, *pro re nata*. In case the morphia is not attended with the desired results, chloral in thirty-grain doses is given per rectum. Anesthetics are avoided as much as possible. **Leopold** says the blood of the patient is already over-burdened with carbonic acid and the toxines, causing the convulsions, and that the adding to it of the carbonic acid of anesthesia simply makes the prognosis worse. He says that puerperal eclampsia occurs most frequently in primiparæ, and four of six cases which I can recall in my own practice (four of which I reported in The Physician and Surgeon eight years ago) were primiparæ. He also says the prognosis is worse in multiparæ than in primiparæ. The prognosis is most unfavorable during pregnancy, and becomes worse with each succeeding month of gestation, and not infrequently such women die undelivered. The prognosis during parturition is much better, and is most favorable during childbed.

## THE ETIOLOGY OF THE CONVULSIONS.

The etiology of puerperal eclampsia is not yet entirely understood. The opinion is, I believe, no longer held by the best authorities that disturbances of the kidneys are the primary cause of the disease. VIRCHOW has recently emphasized the fact that the kidney changes are often insignificant, and stand in no relation to the severity of the attacks. In some women with advanced chronic parenchymatous and interstitial nephritis no convulsions at all occur, while in others severe and perhaps fatal eclampsia is attended with no kidney disease whatever. Moreover, recent investigations have shown that kidney lesions, when present, are apparently only the expression of some severe general disease process which often produces in other organs of the body more serious disturbances than are found in the kidneys, and which do not arise in a case of simple uremia; so that it seems logical to consider the nephritis not as a cause of convulsions, but as a result of the same pernicious influences which produce them. Again, the theory that the attacks are due to anemia of the brain, which is supposed to be due to the edema of that organ, is discredited by the fact that the brains of women who have died from eclampsia have been found hyperemic as often as anemic. Moreover, the hydremia of pregnancy, which is the supposed cause of the cerebral edema, is very frequent, while convulsions are comparatively rare.

The clinical and anatomical picture furnished by a case of puerperal convulsions is that of a case of poisoning. The prodromal gastric and cerebral symptoms, the quickly appearing and profound disturbances in the activity of the brain, and the post-mortem increase of temperature seem to be more easily explained by the supposition of the occurrence of poisoning than in any other way. The kind and extent of anatomical lesions also correspond to those seen after cases of poisoning from lead, arsenic, phosphorus, snake bite, et cetera. The kind of toxine, and the manner of its entrance into the maternal blood, is not yet settled. Although the condition is not supposed to be a simple uremic intoxication, the condition of the kidneys is a matter of considerable importance, for not only are the kidneys looked to for aid in eliminating the poison of the disease, but the pressure of uremia adds to the already existing danger. By some authorities the poison is supposed to be a ptomaine generated by a bacterium which has been found in the blood, urine, and tissues of eclamptic patients. Other investigators think the toxic substance originates in the fetus, and enters the maternal blood through the placenta, and the fact that the convulsions often cease with the death of the fetus seems to give strength to this view. But whatever the source, the convulsions are considered to be merely a symptom of some disease-process connected with which in most cases is a poisoning of the maternal blood with urates, ptomaines, products of metabolism in the placental circulation, et cetera. This toxic condition of the blood increases the irritability of certain brain centers in such a way that partly through the irritation of the nervous system due to pregnancy and the physiological processes attending it, and partly through puerperal irritants from other sources, convulsions are produced. In some cases it seems as if a hereditary or congenital excitability of the brain, or even an extreme degree of peripheral irritation with a normal brain, were enough for the production of eclampsia; such a condition as we occasionally see in children.

## THE PRODUCTION OF PREMATURE LABOR.

In case convulsions set in during pregnancy, unless the patient very quickly responds to treatment, premature labor is brought on by introducing a bougie between the membranes and the uterine wall. When pains have begun, **Barnes** bags are employed to dilate the cervix, and later the colpeurynter. When the os is sufficiently dilated, if the condition of the patient is such as to demand it, the head of the child is perforated, and the extraction immediately made. Otherwise, if the child is still alive, an attempt is made to save it, and, as soon as the condition of the soft parts permits it, the child is turned and delivered. Although the convulsions often cease with the escape of the liquor amnii and the consequent decrease of the intraabdominal pressure, rupturing the membranes as is recommended by some authorities, is a questionable procedure, as one of the physiological functions of the bag of water is to dilate the cervix, and their premature rupture often retards a birth.

**Kaltenbach**, of Halle, advises the immediate rupture of the membranes, and if the birth cannot then be quickly terminated, he recommends Caesarean section as offering a much better prognosis for both mother and child than the procedure adopted by some obstetricians, namely, the making of deep incisions in the cervix, and the forcible extraction of the child by forceps or turning. Lacerations are especially to be feared after eclampsia, as the danger of infection is much greater than after normal labor.

The following brief history will illustrate **Leopold**'s manner of handling these cases:

**Mrs. P.**, aged twenty-six years; fourth pregnancy; brought to clinic at 9 A. M., February 8. Careful cleansing, as usual; pulse 100. External examination shows fundus reaching to edge of ribs, back left, small parts right, head movable over pelvic inlet, heart tone regular. Internal examination—after a 1-4000 vaginal injection. Vagina wide, mucous membrane smooth, water not escaped, os admits two fingers, head movable above brim, sagittal suture transverse. Diagnosis: left occipito-anterior position, eighth month.

9:16 A. M.: First convulsion; one-third grain morphia, hypodermically.

9:30 A. M.: The patient was laid crosswise in bed, a speculum introduced, the cervix seized with forceps, and carefully cleansed up to internal os, and a medium-sized **Barnes** bag introduced and filled with nine ounces of carbolized water. During the next two hours the woman had seven more convulsions. At 11:35 A. M. she was placed in a bath of 100° Fahrenheit, which was gradually raised to 105° Fahrenheit. In twenty minutes she was removed from the bath and placed in bed, wrapped up in warm moist cloths, and covered with woolen blankets; pulse full and strong, 84 to the minute.

12:40 P. M.: BARNES bag was removed, and a vaginal injection of 1-4000 bichloride given. Internal examination showed the os to be the size of the palm of a small hand; edges tense; membranes unruptured; sagittal suture transverse, small fontanelle left; large fontanelle not felt; head fast in pelvic inlet. The membranes were now ruptured, and the colpeurynter introduced into the vagina to further dilation of cervix and vagina, and filled with eleven ounces of water.

1:20 P. M.: Bath for one-half hour, followed by warm packing; hard pains every two or three minutes.

2 P. M.: Colpeurynter pressed out of vagina.

2:30 P. M.: Child born spontaneously and alive, weight five pounds. Had the woman reached the end of the ninth month when the convulsions began, the child would have weighed at least two pounds more, and a perforation would have been made as soon as the os was sufficiently dilated to permit it.

## LEOPOLD AS A CRANIOTOMIST.

LEOPOLD performs perforation on the living child oftener, I believe, than any other prominent obstetrician in Germany. But the condition of his babies is so favorable for living when they are born, and they receive such good care while in the hospital, that his percentage of babies discharged at the end of ten days, the usual time for the dismissal of the women, is as high as those of any other institution here, while the maternal death-rate is the lowest. In contemplating any obstetrical operation, LEOPOLD says the remote as well as the immediate results should be considered; and while occasionally high forceps would no doubt deliver a child which loses its life by perforation, it would be at the expense of such serious injuries to the mother, both immediate and remote, that it is doubtful if the end justifies the means. Exactness of diagnosis is required in other branches of medicine and surgery, and why not in obstetrics? Why should we not always inform ourselves of the dimensions of a woman's pelvis in order to intelligently decide when forceps, turning, et cetera, are indicated in labor? These operations all have their indications and limitations, and the best time to determine them is often before labor has begun. Any one who has watched the work of such a man as LEOPOLD realizes as never before the great desirability of controlling difficult obstetrical cases from the beginning of the labor, and of refraining from attempting impossible operations which only render less successful whatever procedure is finally necessary. The mortality after perforation is undoubtedly higher than necessary, on account of the repeated and futile attempts that are often previously made to effect delivery with forceps, for there is but little danger from a perforation itself. I have frequently seen it made without an anesthetic. LEOPOLD's mortality after this operation is but 1.6 per cent., and three-fourths of his cases have run a normal course in childbed.

Of course, nothing but an urgent indication for immediate delivery, such as threatened rupture of the uterus, eclampsia, fever, uterine tympanitis, excessive duration of labor, et cetera, decides in favor of perforation of a living child, and that, too, when the proper conditions for each of the conservative operations are absent. But when a demand for the rapid termination of labor is present, and when the os is too small for forceps, although the pelvis itself may be of normal size, and when the necessary conditions for symphysiotomy, turning, or Caesarean section are absent, **Leopold** performs perforation.

## THE OPERATION OF SYMPHYSIOTOMY.

**Leopold** has made eight symphysiotomies, the first in May, 1892. For a while he was much pleased with the operation, and thought it would probably do away with perforation of the living child, and relative Caesarean section. But added experience has very materially changed his views, and I doubt if he will do the operation many more times, as he seems at present to prefer Caesarean section to it. One of the children died during delivery, which, of course, took away whatever of value the operation might have had; and one of the mothers died of embolism in the third week. The necessary conditions for the operation are very strictly defined. He will not consider it with a vera of over seven centimeters, for in such a case turning is the preferable operation; nor in a vera of less than six centimeters, for the gain in the internal conjugate is but one and a half, possibly two, centimeters, and a vera of seven and a half centimeters is the lowest in which it is wise to attempt a forceps delivery, which he always makes after a symphysiotomy. This operation should never be made on a primipara, as the rigidity of the genital canal and prevesical soft parts is such as to make the prognosis less favorable; and the experience of the Italian operators has showed that difficulties are met in primiparæ which are not encountered in multiparæ. The child must be alive and strong, the patient must have good pains, and the cervix must be widely dilated to admit of extraction by forceps. Moreover, the patient must be absolutely free from infection. **Leopold** is almost as particular on this point with his symphysiotomies as with Caesarean sections. For this reason a patient must not have been examined at all by nurse or physician before coming to the hospital, and but a very few times under most careful antiseptic precautions after entering. Both the patient and her husband are informed of the fact that while the danger to the mother is somewhat less after symphysiotomy than after Caesarean section, the infant mortality is greater. **Leopold** is very positive that those American operators who are advocating symphysiotomy with a normal pelvis, when an impacted head or a posterior occiput position are present, will change their opinions when their experience with the operation is greater. I do not think the mortality after this operation is yet accurately known. The record is by no means a clean one. The first assistant of **Carl Braun**, in Vienna, told a friend of mine that ten of the twenty women upon whom symphysiotomy had been performed in that clinic had died, and the one case my friend saw there died from septicemia in two weeks, with her pelvis riddled with abscesses and sinuses. **Smyly**, master of the Rotunda hospital, in Dublin, who was with us a month in several courses last fall, has performed the operation four times, with two deaths. **Olshausen**, professor of obstetrics and gynecology in the University at Berlin, and director of the Royal University Frauenklinik, has made it twice, with one death. And a friend of mine from the state of Illinois, told me a few days ago of having performed a symphysiotomy shortly before leaving home. The woman had been in labor many hours; several unsuccessful attempts had been made to deliver the child with forceps; and having seen such unfavorable results after perforation in such cases, he decided to try symphysiotomy! The patient died on the tenth day. The great danger is, of course, septicemia. The operation itself is simple enough, but the after treatment is often very tedious and difficult, and necessitates from three weeks to two months retention in bed. Opinions vary, even concerning the same patient, as to the amount and character of union taking place in the severed joint, and I think some time must elapse before the permanent results of this operation can be properly estimated.

## A RECORD OF SIXTY-FOUR CAESAREAN SECTIONS.

**Leopold** is most proud of his record in Caesarean section. He has made the operation sixty-four times, the largest number yet made by one man. In fifty-three cases the **Saenger** operation was made. Five of them died: one from eclampsia, in 1888, and one from previous infection, the patient having been examined many times internally before coming to the hospital, and having a fetid discharge from the cervix, with much bruising of the lower uterine segment, in 1884. In eleven cases he did the **Porro** operation. Two of the patients died: both from causes which clearly antedate the operation. One was performed during **Leopold**'s absence in 1891, for eclampsia; the other patient came to the clinic in 1888 in a very septic condition, after the child had been decapitated, and one of its arms exarticulated in attempts to deliver it. Threatening uterine rupture made further attempts to deliver through the vagina hazardous, and a **Porro** was made. The patient died on the fourth day from sepsis. Excluding the four cases for which the operator could not be held at all responsible, we have a record of sixty Caesarean sections, with three deaths. It is easy to understand how he obtains such splendid results with this operation when one sees the extreme care he exercises in selecting his cases. He now excludes the **Saenger** operation from consideration in patients with fever; eclampsia; those who have been examined outside by nurse or physician, or by several different men after entering the hospital; those in whom the membranes have long been ruptured; and patients with a conjugate vera above seven centimeters, as one of the other operations is then indicated, and spontaneous delivery occasionally takes place with such a pelvis. **Porro**'s method of operating is preferred in the presence of fibroids; in certain cases of carcinoma of the cervix and vagina; where delivery through the abdomen is necessary, and the uterus is septic or exhausted by a long labor, as thereby some of the dangers of puerperal fever are avoided; and in atony of the uterus which occasionally follows the **Saenger** operation.

In general, for the performance of Caesarean section, the woman should be healthy and strong; the uterus should be healthy with aseptic contents, and a non-infected cervix and vagina; the patient should be in the first stage of labor and have good pains; the os should be somewhat dilated to allow of good drainage; the pulse of the child should be strong and regular; the woman and her husband should want a live child and be willing to run some risks to secure one; and the operator must have capable assistants. Hence it is evident that to obtain the best results, a diagnosis should be made during pregnancy, or very early in labor, and the patient prepared for the operation. Caesarean section will fail if made as a last resort after forceps, version, et cetera, have been repeatedly tried. The following short account of one of the two Caesarean sections I saw while at Dresden will, I think, be of interest:

Mrs. I. M., aged twenty-one years, entered hospital February 15, 1894, 5:53 P. M., with a history of slight pains since the 13th. First menstruation in sixteenth year; primipara; weight one hundred and thirty-two pounds; temperature 98½°, pulse 96; bones and muscles moderately well developed; circumference of abdomen, ninety centimeters. Pelvic measurements: spines, twenty-two centimeters; crests, twenty-four centimeters; trochanters, twenty-seven centimeters; internal conjugate, seventeen centimeters. She was given a bath, rectal injection, and external genitals carefully cleansed. External examination showed the fundus uteri two inches below the ensiform cartilage, and one inch below the edges of the ribs; buttocks in fundus; back right; small parts not felt on account of the tension of abdominal walls; head moveable over pelvic inlet, frontal eminence left; fetal heart 128, regular; tubes convergent, upwards and forwards, showing that the placenta was situated on the posterior wall of the uterus. Diagnosis: right occipito-anterior position, ninth month.

6:15 P. M.: Internal examination—after a vaginal injection of 1-4000 bichloride solution; os permeable only to tip of finger; head moveable; pubic arch narrowed; the sacrum is quite prominent, and stands deep in the pelvic cavity, very easily felt; conjugate diagonal eight and one-half to eight and three-fourths centimeters, vera six and one-half to six and three-fourths centimeters.

6:25 P. M.: To dilate the cervix and vagina to prepare the patient for whatever operation might be necessary, the colpeurynter was placed in the vagina and filled with eleven ounces of water. The patient was placed upon her side, given a hypodermic of morphia and cautioned not to strain for fear of rupturing the membranes. Pains every three minutes, and strong.

8:30 P. M.: Fetal heart strong and regular; pains strong; pulse good.

The operations to consider in such a case were version, symphysiotomy, Caesarean section, and perforation. At 12 o'clock the os had only reached the size of a silver dollar, so symphysiotomy was excluded. The vera was under seven centimeters, so turning was deemed impossible. And as the proper conditions for Caesarean section were present, perforation was unnecessary. So at 1 o'clock A. M. the abdomen and genitals of the patient were shaved, scrubbed with soap and brush five minutes, and with 1-1000 bichloride solution three minutes. Damp sublimate towels were laid over the abdomen while the vagina was cleansed with a 1-4000 bichloride solution, and packed with iodoform gauze. At 1:15 o'clock the narcosis was begun. At 1:30 the field of operation was again disinfected with bichloride solution and ether, and two syringefuls of ergot given hypodermically. An incision was then made from a hand's breadth above the symphysis pubis to three inches above the navel, the uterus drawn out, the upper end of the incision drawn together by two pairs of forceps, and an elastic ligature placed loosely around the cervix, and held with forceps. A long incision was then made through the anterior wall of the uterus, the membranes ruptured and the child withdrawn and cord tied off in two and one-half minutes from the beginning of the incision in the abdominal wall. The uterus contracted well, and the elastic ligature was tightened up a little. The placenta, which was upon the posterior wall of uterus was soon loosened by massage and removed with the membranes, and the cavity of the uterus filled with tampons of gauze wrung out of hot Koch salts solution, some of which were also placed over the uterus. When all hemorrhage had stopped, the elastic ligature was loosened, and ten deep silk sutures were passed, including the whole thickness of the uterine wall, and ten superficial. The uterus, which was well contracted, was then put back into the abdominal cavity, which was immediately closed in the usual way. The entire operation lasted thirty-one and one-half minutes. Mother and child were dismissed on the twenty-first day.

PRAGUE, AUSTRIA, April 14, 1894.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, MARCH 12, 1894.

IN THE ABSENCE OF THE PRESIDENT—DONALD MACLEAN, M. D., IN THE CHAIR.

### EXHIBITION OF PATIENTS.

**DOCTOR BIDDLE**: I have a very interesting case to present for your consideration. It is a case of skin trouble which is not only rare at any age of life, but especially rare among children. This patient, a girl twelve years old, has had this trouble for two months. The diagnosis is pityriasis rubra. There is a constant shedding of the epidermis; very little itching is present. The prognosis is usually wholly bad, the cases going on from bad to worse, and finally dying of exhaustion.

**DOCTOR CARSTENS**: It does not seem to me that we should give such an unfavorable prognosis without first trying the various skin stimulants, as arsenic, and making use of general tonics. It has been recommended to make use of friction in these cases, and alkaline baths, keeping the patient in the bath for days if necessary.

**DOCTOR BIDDLE**: Diuretics have been the most beneficial drugs in the handling of this disease so far. Massage with oil has been used with benefit also.

### DISCUSSION OF TOPICS.

Owing to the absence of DOCTOR GEORGE DUFFIELD the topic of the evening, "Medical Legislation," was postponed.

**DOCTOR PARKER** referred to the matter of the pavements of the city, complaining of the slipperiness of the asphalt during the fall and spring. He thought that certain streets should be paved with cedar blocks so that a physician driving from one part of the city to another part might choose these streets and thus avoid the risk of injury to his horse.

**DOCTOR BONNING**: I do not think that any physician ought to favor cedar block pavement, when we take into consideration the sanitary side of the question.

**DOCTOR CARSTENS**: I quite agree with DOCTOR BONNING on this subject. The asphalt is easily kept clean. The wood pavement is unsanitary, the wood, becoming soaked with moisture and infiltrated with all kinds of dirt, is a good breeding place for microörganisms. The wood pavement is slippery and horses are very liable to fall upon it as well as upon the asphalt. There is quite a field for an inventor to devise some detachable horse shoe, so that the caulks could be changed according to the state of the weather.

**Doctor Maclean**: I think that something ought to be done to keep the streets clean and prevent the clouds of dust from flying about; it seems advisable to me that the society take some action and ask the proper authorities to keep the streets swept.

## REPORTS OF CASES.

**Doctor Hitchcock**: I have a case which I would like to report to the society. The patient is a man, aged thirty, expressman by occupation, married, no children. Some weeks ago he lost his power of speech very suddenly. The aphasia was complete, but passed away gradually, so that the second morning after the attack the patient had regained complete control of his voice. There was a second attack eight or nine days afterward. This was followed by complete restoration of voice, and was also followed by a third attack. The fourth attack was accompanied by a heavy numb feeling in hand. This passed off entirely in three or four days. There was constant pain in head, more intense at night. The pain was localized, being referred to the left fronto-parietal region. The pupils contracted equally; the patellar reflexes were normal. There was a history of chancre ten years ago. Since then the patient's habits had been temperate. The treatment was small doses of iodide of potash with inunctions of mercury. Thirty grains of blue ointment were rubbed in each day. The headaches and attacks of aphasia promptly disappeared. The treatment confirmed the diagnosis of specific trouble.

**Doctor W. S. Anderson**: I would like to inquire what the doctor considers to be the pathology of this case?

**Doctor Hitchcock**: The pathological condition present was supposed to be a syphilitic gumma developing near the left frontal convolution, posterior to and above it. There would probably have been involvement of the leg centre if the growth had increased. The increased hyperemia of the part attendant on the formation of the tumor probably produced the pressure which manifested itself in the aphasia.

**Doctor Flintermann** inquired if there was not danger of the case resulting in general paresis.

**Doctor Hitchcock**: With thorough and persistent treatment I think that the gumma might be wholly absorbed and the patient continue healthy.

**Doctor Flintermann**: Sometime ago I saw a case of occasional aphasia. Antispecific treatment was tried, but a year after the patient was attacked with mania and developed general paresis.

**Doctor Hitchcock**: I have never considered that syphilis stood in a causal relation to general paresis. Cases of this trouble are generally due to excesses. Cases which have a syphilic history where the development of paresis seems to have a specific origin are to be regarded as atypical.

**Doctor W. S. Anderson**: It seems to me that there is another explanation of the development of the aphasia which is more probable than the one given by **Doctor Hitchcock**. If there had been a gumma present its effect would have been constantly causing symptoms which would have been continuous, not interrupted. It is more probable to my mind that there was a syphilitic endarteritis affecting the tone and calibre of the vessels. Any interference in the general circulation would result in exacerbations of the local symptoms.

**Doctor Hitchcock**: I would differ from the last speaker and adhere to my original statement. I would call his attention to the fact that there was present constant headache; a syphilitic endarteritis would be bilateral and more extensive. A gumma existing all the time, but influenced by varying conditions of blood pressure, might cause interrupted symptoms.

P. M. Hickey, M. D., Secretary.

# EDITORIAL ARTICLES.

## THE MICHIGAN STATE MEDICAL SOCIETY.

The meeting of the Michigan State Medical Society recently held in Lansing has been generally conceded to have been the best in the history of the society. While the prevailing "hard times" may have prevented some from attending who would otherwise have been present, owing to the general accessibility of the place of meeting a full attendance resulted. This should emphasize the need for avoiding the temptation to convene in out-of-the-way places, which has occasionally resulted in indifferent success.

The tone and temper of the gathering were admirable. Earnestness and zest for the scientific purposes of the meeting were predominant. The sections were well attended. The papers thoughtful and suggestive. The discussions pointed and practical.

Among the innovations which were practically tested this year, was the method of electing officers. The ballots were conducted continuously throughout the session and with as much dignity as an election by the college of cardinals of a sovereign pontiff. Nominating speeches were not called for. The trumpeter's occupation seemed gone. Natural selection was given free play. The so-called general sessions were thus reduced to secondary importance. The advancement of medical and surgical art and the cultivation of professional amenities were made the prominent motives of the convention.

The election resulted in exalting to the presidential office an old and tried member of the society, Doctor H. O. Walker. This was a well-deserved recognition of a career marked by hard work, industry, and surgical zeal. Doctor Charles W. Hitchcock was reëlected secretary, a result which was gratifying to those who know how indefatigably he has devoted himself to the society's welfare. The next meeting of the society will be held in Bay City.

## THE REVISED CODE.

The forthcoming meeting of the American Medical Association is to deal with the report of the committee on revision of the constitution and by-laws. The changes suggested are necessarily of a nature to evoke some opposition not only from the amiable representatives of old fogyism, but from those who cannot be accused of excessive conservatism. The recommendation of the committee, as embodied in their majority report, will constitute a practical effort to settle old-standing questions of vexatious character. It will recommend that increased powers be vested in the central business committee, giving it full executive functions. The general session is to be shortened to the least extended duration. In the important matter of consultations, every physician is to regard the matter as a personal one, and select his own associate, in other words, no pathies are to be recognized. In the copyrighting of his books, and the patenting of his mechanical appliances, the physician is to come under the same regulations as govern the community in general. It is also to be recommended that the opportunities now afforded to those connected with medical colleges and hospitals to advertise their specialties, will not be restricted to those who may be so connected.

Considerable opposition will doubtless be manifested to the recommendation providing for proprietary rights in patented inventions. While the simplest conceptions of justice would regard the inventor as entitled to the rewards accruing to him from the products of his brain, it must nevertheless be conceded that the practice of medicine would be impeded in its beneficience if its operations were carried out under patented devices. If all the processes and appliances of antiseptic surgery could only have been used after paying a royalty to their inventors, surgery would still be struggling with the advocates of older methods. Expediency is man's wisdom. If medicine were to relinquish its altruistic sanctions, it would soon be contaminated by mercenary motives. To preserve the chief glory of medical art its sublime unselfishness is the highest expediency.

The committee must not expect their suggestions to prevail without some emendation at the hands of the association. If their report be not accepted the committee will still be entitled to honorable recognition for making the first tangible and practical effort to solve difficult and disputed problems.

## EDITORIAL BREVITIES.

### CROUP AND DIPHTHERIA.

THE necessity, for all practical purposes of sanitation, of considering all cases of croup as laryngeal diphtheria, is confirmed by the investigations of the New York Health Board. In an examination of two hundred and eighty-six cases of so-called membraneous croup, the KLEBS–LOEFLER bacillus was found in two hundred and twenty-nine cases, showing that eighty per cent. of these cases are laryngeal diphtheria. These figures certainly warrant the suggestion that all cases of membraneous croup should be regarded as pharyngeal diphtheria, and controlled accordingly. The necessity of health boards employing the services of an expert bacteriologist seems urgent. Much uncomfortable controversy between physicians and health commissioners might be avoided if this means of producing better understanding were provided.

### A NEW TREATMENT OF TYPHOID.

THE recommendation recently made by a New York physician that typhoid patients should be liberally fed with solid food, provided this be accompanied by a proper quantity of water, has been succeeded by the suggestion that typhoid should be treated by large amounts of water internally. The object of the treatment is to dilute the fluids of the body, and carry off the toxines. **Maillart**, of Geneva, has reported fourteen cases in which this treatment was carried out, with but one death. To secure good results, the patient must drink five or six quarts of water daily.

### INTERNATIONAL LANGUAGE.

The inevitable dissatisfaction at the results of international congresses, is again expressed in regard to the one recently held in Rome. Failure to understand the languages of the congress produces a desperate condition of mind in those who desire to be edified. The Italians have been accused of a considerable amount of bad behavior at the recent congress, and accused of immoderate and noisy talking whenever the English language was used. The suggestion is again made that modern Greek should be the language of conferences. The time usually devoted to the dead language, given to the living tongue would, it is said, speedily confer conversational ability.

## MEDICAL NEWS.

### PROPHYLAXIS OF SMALL-POX.

At a special meeting of the Michigan State Board of Health, held at Lansing, May 3, 1894, the following preambles and resolution were adopted: *Whereas*, Small-pox is widespread in the United States, prevalent in Chicago, and present in four places in Michigan, and *Whereas*, By reason of the recent neglect of vaccination and revaccination it may be still more prevalent, *Resolved*, That the State Board of Health recommends to each and every local board of health in Michigan, that it offer free vaccination with bovine virus, under Act 146, laws of 1879; also that each local board should recommend general vaccination, and revaccination of all persons not successfully vaccinated within five years. The law under which general vaccination may be favored by local boards of health, is as follows:—Act Number 146, Laws of 1879, entitled, "An act to authorize boards of health of cities, villages, and townships to furnish vaccination to the inhabitants thereof." Section 1.—*The People of the State of Michigan enact*, That the board of health of each city, village and township may, at any time, direct its health officer or health physician to offer vaccination, with bovine vaccine virus, to every child not previously vaccinated, and to all other persons who have not been vaccinated within the preceding five years, without cost to the persons [person] vaccinated, but at the expense of such city, village, or township, as the case may be.—§1685 "Howell's Statutes."

### AMERICAN MEDICAL ASSOCIATION.

The committee of arrangements has worked indefatigably on the matter of transportation rates, trying to get a round trip for a single fare.

By advice of Mr. T. H. Goodwin, G. P. A. of the S. P. Co., who furnished addresses, we sent out circulars to agents of all roads interested in the matter.

About one-half of those replying favored our petition and promised to advocate it before their respective associations, through which all such matter must be arranged.

The following communication from Mr. Goodman places the matter as it now stands, in a clear light.

SAN FRANCISCO, CALIFORNIA, March 16, 1894.

DR. R. H. PLUMMER,
Chairman, Com. of Arrangements, A. M. A.,
652 Mission Street, San Francisco.

DEAR SIR:—This morning's mail brings us your yesterday's letter, handing for our perusal three letters from eastern mailing officials. Having read the letters you sent me we return them herein and beg to emphasize our previous statements to you in person and by letter, that the Trans-Continental roads have virtually done what you ask, namely accorded a one-way rate.

In other words, the rate for a thirty day ticket from Missouri river points to San Francisco is $60.00. Excursion, that is, round-trip tickets, Missouri river points to San Francisco and return are being sold to-day at a rate of $65.50. Such tickets require the going trip to be made within fifteen days from date of sale and the return trip within fifteen days after the day upon which the ticket is signed here in presence of a railroad agent, but in no event later than July 15, next.

We have told you that within the state of California we ignore this fifteen day limit on both going and returning trips; in other words that the holders of the tickets are at liberty to move at will within the state of California within the life of the ticket, and that the fifteen day limit returning is not enforced west of our terminals at Portland, Ogden, and El Paso.

You have asked our permission to state positively that these Midwinter Fair rates would be in force at the time attendants at your convention will want to move westward. We have replied that the traffic is west bound traffic, and that we do not control the matter. You will doubtless, however, recollect our telling you that this rate would, in all probability, hold until after that period. We gave you our reason for that statement, namely, that one of the roads had announced that it would continue the sale up to January 30.

We appreciate your desire for an authoritative statement in this regard. As we cannot make it, we will write you that we feel you are quite safe in stating the fact that such rates have been announced, and that the sale would continue until that date.

We beg to again call your attention to one point which is quite material in this matter. The transcontinental roads having virtually done what you asked you should bring all the influence to bear that you can upon the roads east of the transcontinental roads. Those roads are, for the most part, the ones forming the Western Passenger Association, the Central Traffic Association, and the Trunk Line Association. The Western Passenger Association's roads lie between the Missouri river and Chicago and Saint Louis. You should go to them for a rate similar to our Midwinter Fair rate. They tell you their rate will be $20.00 from Chicago to Missouri river and back, and $12.00 from Saint Louis to Missouri river and back. As the single trip rate from Chicago to Missouri river is $12.50 and from Saint Louis $7.50, you will see that their rates are not reduced nearly as much as the transcontinental road rates. Can you not through some of your profession at Chicago approach the General Passenger Agents of the lines leading from Chicago whose names we have given you? We think they will appreciate the importance of the occasion. One of our assistants has in hand the matter of reduced rates locally, and you will be shortly advised.

Respectfully yours, T. H. GOODMAN.

Extract from letter of February 12, 1894.

The rates thus continued are as follows: $65.50 from Missouri river points, being Sioux City, Council Bluffs, Omaha, Pacific Junction, Saint Joseph, Atchison, Leavenworth, and Kansas City; $77.50 from Saint Louis, Cairo, Memphis and New Orleans.

The rates mentioned to you exceed the one-way thirty day rate as follows:

That from the Missouri river by $5.50; that from Saint Louis, Cairo, Memphis and New Orleans by $10.00; and that from Chicago ($85.50) by $13.00.

We deem it but proper to here mention that if our Shasta route between San Francisco and Portland is passed over on either going or returning trip from Missouri river, Saint Louis or Chicago, the rate will be $15.00 greater.

As on this occasion passenger movement is from the east to the west, it is but proper that the question of rates should be taken up with officials of eastern roads. We suggest, therefore, that you correspond first with those who have charge of the passenger traffic of the so-called Trans-Continental Association roads. They are as follows:—

* * * * * * * * * * * * * * *

For rates from the territory lying beyond the Missouri and Mississippi rivers you should address, Mr. B. D. Caldwell, Chairman Western Passenger Association, Chicago; Mr. F. C. Donald, Commissioner, Passenger Department, Central Traffic Association, Chicago; Mr. L. P. Farmer, Commissioner, Passenger Department, Trunk Line Association, New York; Mr. M. Slaughter, Assistant Commissioner, Southern Passenger Association, Atlanta, Georgia.

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From the foregoing communications it will appear that, while we have not been wholly successful, if the roads between the Missouri river and Chicago, and between Chicago and Atlantic points where local travel far exceeds that over the Rocky mountains, will give the same reductions as the roads from the Missouri river points to San Francisco, we will have a single fare for a round trip.

Cannot the profession in the east, by united efforts, secure these concessions?

The time is growing short, and chairman of the several sections should send in their reports, et cetera for insertion in the programme.

R. H. PLUMMER, Chairman.

SAN FRANCISCO, CALIFORNIA, March 25, 1894.

## MINOR INTELLIGENCE.

SMALL-POX is prevalent in Chicago.

A NEW hospital has been established at Davenport, Iowa.

A HOSPITAL exclusively for colored people will be erected in Saint Louis.

THERE are eleven medical colleges in Saint Louis, not one of which is endowed.

Doctor Cusco, of Cusco speculum fame, is dead, aged seventy-five years.

The Barnes Medical College, of Saint Louis, has adopted a four years' course.

The Association of American Medical Colleges has a membership of seventy-one.

Ten thousand physicians attended the International Medical Congress at Rome.

The Chicago Medical Society recently elected Doctor Nicholas Senn its president.

The Central Illinois Medical Society held its twentieth annual meeting, at Pana, on April 24.

The American Academy of Medicine will meet at Jefferson, New Hampshire, on August 29 and 30.

It is rumored that Lawson Tait has been tendered the chair of gynecology in the Chicago Post-Graduate School.

The twenty-fourth annual meeting of the Colorado State Medical Society will be held in Denver, June 19 to 21.

The Toledo Medical College has been restored to good standing by the Illinois State Board of Medical Examiners.

The Western Pennsylvania Medical College recently conferred the degree of Doctor of Medicine on fifty-seven graduates.

It is estimated that there are seventeen thousand medical students and one hundred medical colleges in the United States.

There is a bill before the legislature of New York which contemplates the licensing of Christian scientists, clairvoyants, et cetera.

Power to revoke the license of physicians guilty of habitual drunkenness has been delegated to the Arkansas State Board of Health.

The *Archives of Pedriatrics* will in future be edited by Dillon Brown, M. D., adjunct professor of pedriatrics at the New York Polyclinic.

The faculty of the Saint Louis College of Physicians and Surgeons recently resigned in a body in order that the school might be reorganized.

Gladstone's Cataracts.—Mr. Gladstone is under Mr. Nettleship's care for double cataract. No operation will be undertaken for six months.

A bill has been passed by the New York legislature establishing an epileptic colony at Sonoma. The institution will be known as the Craig Colony.

The organization of a new hospital and dispensary in New York City for the treatment of consumptives is a project that is being favorably discussed.

The Masonic fraternity, of Chicago, have established a hospital in that city for the special care of its members. Doctor G. Frank Lydston is medical director.

Doctor E. L. Keyes, of New York, has received a fee of $60,000 for medical services rendered Mr. Vanderbilt during a four month's trip on the latter's yacht, Valiant.

The Missouri State Board of Health has passed a resolution which will have the effect of debarring women physicians from acting as assistants at the city institutions.

The Cincinnati College of Medicine and Surgery has been affiliated with the University of Cincinnati, and will hereafter be known as the Medical Department of that institution.

Windsor, Vermont, has been subjected to an epidemic of typhoid fever. One to every fourteen of the population have suffered from the disease, and many deaths are reported.

The State University of Iowa will soon be enlarged by the addition of departments of dentistry and homeopathy. The building for the former will cost $25,000; for the latter, $15,000.

The Keokuk Medical College has established a chair on the History of Medicine, and Doctor James Moores Ball, editor of the *Tri-State Medical Journal*, has been appointed lecturer on that subject.

The Illinois State Board of Health has refused to recognize diplomas issued by the College of Physicians and Surgeons, the American Medical College, and the Barnes Medical College, all of Saint Louis.

A bill has been introduced in the legislature of Oregon which declares against hypnotism, electro-magnetism, and mesmerism, and provides capital punishment as a penalty to perpetrators of these crimes.

The Navy Hospital at Brooklyn will be reconstructed and modernized. Two new wards, sufficiently capacious to accommodate one hundred men, will be erected, one on each side of the present main building.

The Congress of American Physicians and Surgeons will be held in Washington, May 29 to June 1. Much energy has been displayed in preparation for the congress, and it is expected to be a pronounced success.

The anti-vaccination bill which has been before the Rhode Island legislature was lost by the deciding vote of the speaker. The legislators of that commonwealth appear to be about equally divided on questions of sanitary enlightenment.

At the recent meeting of the Michigan State Medical Society the following officers were elected for the ensuing year: President, Doctor H. O. Walker, Detroit; secretary, Doctor C. W. Hitchcock, Detroit; treasurer, Doctor W. G. Henry, Detroit.

Doctor Joseph Workman, of Toronto, Ontario, aged eighty-nine years, is dead. He was superintendent of the Toronto Asylum for the Insane about twenty-five years, first president of the Ontario Medical Council, and a generous contributor to medical literature.

Doctor William Pepper has resigned his position as provost of the University of Pennsylvania. During his administration the university has increased in the teaching force from eighty-eight to two hundred and sixty-eight, and in students from nine hundred and eighty-one to two thousand, one hundred and eighty. The value of the lands, buildings, and endowments has increased about $4,000,000. Doctor Pepper has just donated $50,000 to be expended in hospital extension.

BROOKLYN has an anti-compulsory vaccination league. It demands the appeal of state and local laws and ordinances compelling people to submit to vaccination; and also demands equal recognition for the homeopathic "varioline" treatment with that of regular vaccination.

THE Cleveland Medical Society will be addressed by Doctor William Pepper on Friday evening, June 22, the occasion being the second quarterly meeting of the society. The doctor will also give a clinic on the following Saturday morning at one of the city hospitals to which the profession is invited.

THE Ohio State Board of Health has adopted resolutions urging medical examining and licensing boards of the various states to request that medical colleges, to be considered in good standing, shall devote not less than forty hours to the teaching of hygiene, and require an examination therein.

DOCTOR C. G. CHADDOCK, formerly assistant medical superintendent of the Northern Michigan Asylum for the Insane, and now professor of diseases of the nervous system in the Marion-Sims College of Medicine, of Saint Louis, has been made assistant editor of *The Medical Mirror*, of that city. The doctor is a graduate of the University of Michigan—literary department 1883, medical department 1885—and has contributed generously to medical journals, several of his articles having appeared in The Physician and Surgeon. We congratulate Doctor Chaddock on his accession to the editorial tripod, and *The Mirror* on its valuable acquisition.

THE TRANSACTIONS OF THE PAN-AMERICAN MEDICAL CONGRESS.—The proceedings of the First Pan-American Medical Congress were compiled by the Secretary-General, Doctor Charles A. L. Reed, and transmitted to the Department of State in November, 1893. By recent joint resolution of the Senate and House of Representatives the manuscript was transmitted to Congress and a concurrent resolution has heen adopted, directing the public printer to print the same. The manuscript is now in the office of the public printer and will be put to press at once under the supervision of the editorial committee of which Professor John Guiteras, of Philadelphia, is the chairman.

# RECENT PUBLICATIONS.

## REVIEWS.

### THE INTERNATIONAL MEDICAL ANNUAL.*

THIS standard reference book of treatment is a general favorite with the practitioner. The present number maintains the high repute of its predecessors. "The Annual" is a faithful and impartial compilation, recording all that is essential in modern medicine. The present number is exceedingly well illustrated, especially the valuable contribution upon insanity. "The Annual" is most ably edited and forms one of the essential books of the year.

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* A work of reference for medical practitioners. 1894. Price, $2.75. E. B. Treat, Cooper Union, New York.

## A MANUAL OF PRACTICAL OBSTETRICS.*

THE very favorable verdict we expressed on the appearance of the first edition of this book has been justified in the speedy demand for a second edition. For the purposes of the student, the manual is exceptional. It is clear, concise and modern. Abundant illustrations elucidate the text. It may be truthfully described the best book of its kind.

* By Edward P. Davis, A. M., M. D., Professor of Obstetrics and Diseases of Children in the Philadelphia Polyclinic, et cetera, with one hundred and forty illustrations, several of which are colored. 300 pages. Cloth, $2.50. P. Blakiston, Son & Company, 1012 Walnut street, Philadelphia.

## SYLLABUS OF OBSTETRICAL LECTURES.*

THE subject of obstetrics is very thoroughly traversed in a small space in the present volume. The superfluous has been carefully eliminated, and what remains is the golden residuum of fact. For a rapid and comprehensive survey of the subject this book is invaluable. Teachers of obstetrics will find it a *sine qua non.*

* By Richard C. Norris, A. M., M. D., Demonstrator of Obstetrics in the University of Pennsylvania. Third edition. Price, cloth, interleaved for notes, $2.00 net. W. B. Saunders, Philadelphia.

## ESSENTIALS OF PHYSICS.*

THIS is one of Saunders' admirable series of compends, in which the science of physics is unfolded in question and answer form. The number fully maintains the high standard attained by this series of manuals.

* By Fred J. Brockway, M. D. Second edition. Price, $1.00. W. B. Saunders, Philadelphia.

## A MANUAL OF MATERIA MEDICA AND THERAPEUTICS.*

THIS is a new work upon therapeutics following the last edition of the pharmacopeia. It treats of the physiological action of drugs, their source, composition, and describes their therapeutic applications and modes of administration. The treatment of disease by remedial agents is elucidated by over two hundred formulæ. A useful chapter on incompatibility enhances the value of the volume, which will be found an exceptionally fitting one for the student of this subject.

* By A. A. Stevens, A. M., M. D., Instructor in Physical Diagnosis and Lecturer on Terminology in the University of Pennsylvania. Cloth. Price, $2.25 net. W. B. Saunders, Philadelphia.

## THE YEAR-BOOK OF TREATMENT FOR 1894.*

THE Year-Book of Treatment is a standard favorite with practitioners, and an unfailing source of information on all that is progressive in therapeutics. The non-medicinal measures to be employed in heart disease are given particular attention in the present volume. A voluminous amount of matter upon Graves' disease is also reduced to assimilable pulp. The Year-Book will be of great assistance to the modern therapeutist.

*A critical review for practitioners of medicine and surgery. Lea Brothers & Company, Philadelphia.

# MEDICAL PROGRESS.

## OBSTETRICS.

### A CASE OF PUERPERAL ECLAMPSIA.

Mrs. M., a multipara, came into my hands during the latter part of April, 1890, for care during her approaching confinement, her regular physician being necessarily absent.

She was a large, fleshy woman, and inclined to take on adipose tissue rapidly. She had had some difficulty in her first confinement, four years before, but since then had remained in good health. The case came into my hands at the beginning of the eighth month, the patient complaining of swelling of the feet and ankles and some headache.

I at once tested the urine and found it in about half the usual quantity, and albumin about a fifth per cent.

She was at once placed upon the usual prophylactic measures, with strict admonition concerning diet, consisting chiefly of milk. The urine was daily tested, and, in spite of keeping the system depleted by means of cream of tartar and potassii acetas, twenty grains every six hours, for its diuretic and cathartic action, also Epsom salts, the urine remained small in quantity, with albumin increasing.

Seeing these symptoms continue, the question arose as to the advisability of inducing labor at once, as the child was known to be alive.

Finally, in accordance with the conservatism of most authorities of the day, since no actual convulsion had occurred, although I anticipated an outbreak at any moment, I decided to await nature's developments.

Just two weeks from the time I first saw the case, at eight months and a half, I was hurriedly summoned by the husband at 6 A. M., who stated that his "wife was dying."

I rushed into her room and found her in a severe convulsion. As I entered she exclaimed, "Oh, my head!" I at once injected hypodermically a quarter of a grain of morphine, with one one-hundred-and-twentieth of a grain of atropine. No effect was produced except a transitory lessening of the convulsions, but they continued to come and go.

I at once summoned a brother medical officer in consultation, meanwhile attempting to control the spasms with chloroform. On his arrival we agreed that if venesection did not stop them, premature delivery would be necessary. An attempt to find the median basilic vein proved utterly futile, owing to the enormous quantity of fatty tissue lying over these veins. Seeing this, the spasms increasing in violence and frequency, a fatal result to both mother and child was feared. Chloral, twenty-five grains, and bromide of potassium, forty grains, were now given by enema. Venesection was abandoned and Barnes' rubber dilators, beginning with the medium size, were inserted into the os uteri successively and retained about ten minutes each. These "dilators" were filled with cold water by means of an ordinary Davidson bulb syringe attached to their tubes.

In half an hour the dilatation was complete. The forceps were easily applied and a large female child was extracted. Of course it had been destroyed by the violence of the convulsions. During this whole time the woman was wholly unconscious and remained so for thirty-six hours afterward.

Just here I may add, in speaking of venesection above, that when it was found impossible in the arm, recourse was had to four large wet cups directly over the kidneys. Ordinary glasses were used and about a pint of blood was extracted.

This undoubtedly lessened the frequency of the attacks for the time, during which period the dilatation was accomplished.

After emptying the uterus, contraction took place, so that very little blood was lost. Free action of skin was encouraged by the application of hot bottles, et cetera. Urine removed by catheter was small in quantity, very dark, and heavily laden with albumin—three-quarters per cent.

No recurrence of the convulsions took place, though the patient remained drowsy and semi-conscious only for the next twenty-four hours. Copious antiseptic vaginal douches, very hot, were used daily thereafter for three weeks. Temperature did not exceed 100°. Diet was limited to hot milk with the free use of water. The urine was accurately tested daily as to quality and quantity. The albumen at delivery was a half per cent. with granular casts. The estimated urea in twenty-four hours for several days was only two hundred and fifty grains. As a result, uremic symptoms continuing, the patient was put upon Buffalo lithia water *ad libitum;* no other water allowed. About three quarts were drunk daily at first. The urine increased in quantity by next day, color improved, quantity of urea increased to three hundred grains. Head symptoms improved. No medicine was given except to keep the bowels open. The lithia water was depended upon wholly in increasing quantities. At the end of six weeks the patient was in good condition and her urinary functions were almost normal. She then decided to go off for a visit to a neighboring public resort, in order to try the effect of a chalybeate water, said to have proved excellent in kidney troubles.

One week's sojourn there produced such discomfort, constant headache, puffing around the ankles, and general malaise that she returned. Examination showed that the urine was only thirty-two ounces in twenty-four hours; albumin, one-quarter per cent.; some casts; urea, two hundred and sixty grains.

The patient was placed upon the former treatment, with immediate improvement in every way. The lithia water was gradually increased until urea showed five hundred grains in twenty-four hours, and seventy-five to eighty ounces of water passed daily.

The patient then rapidly convalesced and made a complete recovery.

The patient being of a heavy, plethoric type, I believe the chalybeate water was decidedly injurious.

The marked benefit as a result of the natural lithia water shows the power of this drug, in its natural state of solution, in dissolving the rapidly accumulating urea out of the minute uriniferous tubules, thus removing this vital poison, always so prominently existing in these cases.

No more trying conditions ever confront the attending physician than these cases of ante-partum, intra-partem and post-partem eclampsia. In the first two conditions we have to deal with the problem of two lives. Given the conditions of a living child, at seven to eight months and a half, with the mother showing marked symptoms of impending eclampsia, shall we procrastinate, temporize by the various means usually adopted, till finally we are forced to act after the explosion has occurred, and probably extract a stillborn fetus?

In the above reported case, might I not have saved one life by interfering sooner? This child was certainly viable soon after the case came into my hands.

The discussion of Doctor Green's interesting paper on Eclampsia, in *The American Journal of Obstetrics* for July, 1893, at the meeting of the American Gynecological Society, shows a marked difference of opinion among medical men as to our capability to prevent entirely the full development of puerperal eclampsia when we have had charge of the case early.

I certainly believe with those who realize our total inability to prevent this climax, no matter how watchful we are in the early stages of many cases.

Yet the question of interference at an earlier stage than is now sanctioned by conservative obstetric methods is one which can only be decided by an analysis of the results obtained in a large number of cases subjected to the two different modes of treatment.

Of course, up to the seventh month, the advisability of every conservative measure will hardly be questioned by any one.

I have seen nothing in the journals concerning the free and persistent use of this Buffalo lithia water in the very earliest stages of these cases.

I believe if this were more generally adopted, many of them would escape the further development of the insufficient renal function.

My only reason for presenting this case is to call attention to its beneficial effects.—R. R. Ball, M. D., in *The New York Medical Journal.*

## MEDICAL MELANGE.

### MEDICAL BULLETINS.

In view of the growing practice of physicians furnishing the press with daily bulletins concerning the maladies of their illustrious or pseudo-illustrious patients, the opinion from the other side may be of interest: That much difference of opinion exists on the question may be taken for granted. Looking at it, however, from a medico-ethical point of view, I am strongly inclined to the opinion that undue importance (stimulated, it may be, by a feeling, more or less acute, of jealousy) has been attached to the passing notoriety gained—or rather assumed to be gained—by the affixing to medical bulletins of the signatures of the attendant practitioners, from which, nevertheless, I firmly and conscientiously believe that beyond the personal gratification possibly derived by a junior practitioner from the transient publicity accorded to his name, but little, if any, professional advantage is gained. If, indeed, as some allege, the practice merely pandered to the public appetite for sensational news, it could not, in my opinion, be too severely criticised and condemned. When, on the other hand, it arises from a purely honest public anxiety for authenticated information in the dangerous illness of, for instance, an illustrious or popular statesman, a distinguished prelate or esteemed dignitary, or some noble character beloved and respected by the nation, I not only fail to realize any valid objection thereto, but am forcibly impressed with the conviction that, in such and like cases, the natural public solicitude may be legitimately gratified without in any degree impairing professional morality; as a matter of fact, indeed, under the implied limitations the prescriptive custom of issuing signed bulletins has an evident meaning and the sanction of weighty precedents. Moreover (and the question may, I think, fairly be asked), if the signatures of the fuculty in attendance be deemed relevant and essential in bulletins relating to royalty, why should the principle be regarded as irrelevant and objectionable in cases of special note, though of minor national importance? Be that as it may, it is, I apprehend, to the form rather than to the substance of bulletins that exception is generally taken—inasmuch as when the desired information is simply recorded in a newspaper paragraph, but without the customary signatures, no grave objection would appear to be raised. The conventional practice, withal, is one that it has hitherto been found impracticable or inexpedient to prohibit; and whenever the question of its abuse unhappily arises, it should be ethically determined according to the essential and collateral incidents of the particular case. At the same time the multiplicity of bulletins, the ill-judged flourish of titles and degrees, and the insertion of unnecessary details are always open to obvious objection and reproof. Need I add that personal modesty and good taste—two important factors that could not fail to exert a healthy restraining influence in the framing of bulletins—are natural gifts not always to be found in one and the same person, much less are they equally shared by all alike. Be that as it may, in view of the non-existence of any rule, written or traditional, by which the faculty should be governed in issuing bulletins (by some regarded, rightly, as a possible mode of covert medical advertising) in the illnesses of distinguished patient, I should hail with much satisfaction the authoritative utterance of the respective Royal College—jointly or severally—on the subject which would tend to allay contention, and thereby promote the true interests of the profession—an appeal which I would hope will sooner or later meet with an effective response in the form of a carefully-defined rule. Meanwhile, in the hope of averting contentious criticism, and so far to promote professional harmony, I would suggest, as ethically essential, that in all cases of illness, except in the royal family, or of notable personages of national interest (in which professionally authenticated daily reports are rendered more or less imperative with the view to allay public anxiety), the medical attendant or attendants shall loyally withold their signatures from bulletins; and, further, shall not allow their names to appear in any paragraph published in the newspapers relative to their patients; a contrary course, in so far as it may constitute a covert mode of professional advertising, is opposed to the best traditions of the faculty, and justly condemned by it, as are all oblique, indirectly inspired, and unauthorized communications to the lay press.

Practitioners, moreover, will best consult their own honor and dignity, and true personal interests withal, by a conscientiously rigid but courteous refusal to be interviewed by reporters, or other non-related persons, with reference to the illness of patients; in regard to whom the desired information should emanate solely from, and its responsibility (clearly expressed) be accepted by the patient or his family. In a word the principle enunciated in the following old hippocratic adjuration should constitute the simple rule and guide of the Faculty of Medicine: "Quæcunque inter curandum videro audiverove, siquidem ea effari non expediat, silentio suppressurum."—*Exchange.*

## WORK AND WORRY.

THE late Sir Andrew Clark used to say, "It is not work that kills, it is worry," and in his belief the finest end of a physician was to die in the active performance of his duty—in other words, in harness—as he himself untimely fell. Few will deny that worry kills quicker than work; but are there not some kinds of work which cannot be dissociated from worry—or rather, I should say, from that state which worry produces? The work of the ploughman or woodman is healthful being free from all worry and carried on in the pure air of heaven. With the work of the merchant, the politician, or the professional man more or less worry is inseparably connected. The practice of medicine surely cannot be regarded as free from what may be called "work worry," To some, no doubt, it is almost infinitesimal; but to others, whether from idiosyncrasy or something else, it is excessive, and to such how welcome and how necessary is the annual holiday. This "work worry," when it exists to the full, may be compared to an incubus, resting, say, upon the nervous system, which sleep is incapable of relieving, and which nothing but a holiday can fairly shift. With careful observation, as the train carries one away from practice, this "work worry" may be felt to disappear, and in three days the kidneys, by their freer action, will announce their relief from an unnatural restraint. If, then, it be granted that there is such a thing as "work worry," and if it be further granted that "work worry" must have a prejudicial influence on the whole system, and be a factor in the production of those signs and symptoms a man has who is said to be "overworked," as well as the cause of changes in the circulatory and nervous system which no holiday, however long, will cure, does it not become the doctor to warn the sufferer that though, as a rule, it is worry and not work that kills, his work is to him a real worry? As we grow older this "work worry" no doubt is more prejudicial; and it is a question well worthy of discussion at what age such work ought to be abandoned.

## FASHIONABLE QUACKERY.

SIR JAMES CRICHTON BROWNE, in his address before the Sheffield Medical School, in alluding to medical ethics expressed the opinion that the present widespread patronage of quackery is a real humiliation to the medical profession. "It is patronized in high places, but the very hotbeds of it are our fashionable watering places and health resorts." Sir James declares "our learned clerics are most addicted to it—the skilled artisan the least"—and he thinks these clerics should "seriously reflect that in giving countenance to nostrums they exhibit a credulity and superstition that must seriously impair their usefulness in their sacred calling with all thoughtful men."—*The British Journal of Dental Science.*

# MISCELLANY.

## THE TRIP TO SAN FRANCISCO.

MEMBERS of the medical profession in Michigan and adjoining states who contemplate attending the meeting of the American Medical Association at San Francisco, in June, will find it to their interest to investigate the service of the Northern Pacific Railroad before selecting their route. This road is thoroughly equipped with all the modern appliances for railway comfort and traverses a region of wonderful phenomena. In a general way the country tributary to this great transcontinental line may be segregated into three grand divisions: First, the broad prairies and plains which stretch in magnificent panorama, and eloquent of the future, from the Father of Waters to the Rocky Mountains. Next, the mountain region, stretching from the grim old summits of the Rockies on the east to the pine-clad peaks of the glorious Cascades on the west—a region of grandeur, of inspiration. Finally, the rain-washed, sun-kissed hills and valleys of the Pacific slope, redolent of pine and balsam, vine and orchard; the promised land to many a weary emigrant since the days when the valiant Whitman, after his long, unequaled, and dangerous ride to the East, led back to his beloved Oregon and the far Northwest his train of emigrants, and saved to our country that magnificent domain, the Puget Sound region. The Northern Pacific is the only railroad running to the Yellowstone National Park, and all who make the trip to San Francisco should avail themselves of the route affording an opportunity to see this natural wonder. The park is about sixty-two miles long and fifty-four miles wide; its area being about 3,350 square miles. It is an irregular, volcanic plateau, of an average elevation above the sea of about 8,000 feet. Custer's battlefield and the Mammoth Hot Springs are objects of interest within easy access of this road. The peculiar process going on at these springs result in colored waters startling in their brilliancy. Red, pink, black, canary, green, saffron, blue, chocolate, and intermediate gradations are found in complete harmony. These colors are of an algous growth. When the water exceeds 150° Fahrenheit this growth is white; in cooler waters the growth assumes some one of the colors mentioned. Connection with the Northern Pacific Railroad may be made at Duluth, Superior or Saint Paul.

## PICTURESQUE CALIFORNIA.

AFTER discharging the duties incumbent upon them, as members of the American Medical Association, physicians who visit San Francisco may desire to take a jaunt through the interior of the state. The San Francisco and North Pacific Railway traverses the most varied and scenic area of California, and offers the pleasure-seeker attractions in great number. No road or section of road of its size in the world has so many mineral springs and health resorts located along its route. Chemical analyses and the experience of eminent travelers prove that the waters of the famous mineral springs of the world are duplicated on the line of this road,—which extends from San Francisco to Ukiah, a distance of one hundred and thirteen miles. At the different springs there are hotels with beautiful surroundings. Irrigation is not necessary in this section for the raising of fruit, grain, et cetera, as in other parts of California. The famous gigantic redwood trees abound along the line of this road. Before returning from the Pacific Coast make a tour of this picturesque route, enjoy its valleys, mountains, streams, redwood forests, numerous resorts, and breathe in the most delightful climate in the world.

## CLINICAL NOTES.

**Consumption Contagious.**—We clip the following from one of our exchanges: "Doctor Herman M. Biggs, Chief Inspector of the Division of Pathology and Bacteriology of the New York City Health Department, officially declares consumption to be a contagious disease. Six thousand deaths from this dread disease were reported in that city alone during 1892. State and municipal boards of health in all parts of the country agree that consumption is at least an infectious and communicable disease, and that every tubercular person is a source of actual danger. The disease is transmitted from the sick to the well usually by means of the dried and pulverized sputum floating as dust in the air, and it is estimated that at least one-seventh of the persons who die from phthisis acquire it from breathing the air so tainted. This being the case it can in a great measure be restricted by the use of proper and unobjectionable disinfectants. Platt's Chlorides, one part to ten of water, frequently sprinkled about the room, and the same disinfectant, one part to four of water, in the cuspidor or vessel receiving the poisonous and offensive expectorations, is especially applicable as it is a liquid without odor or color, and its frequent use is not attended with any annoying features. Certainly it is time that more strict surveillance of this destructive disease were assumed by physician and attendant, and if physicians will do with consumption as they have done with other dangerous diseases much suffering and loss of life can be prevented."

**Some Experiments with Terraline.**—In a late number of *Food* is an interesting article on some experiments with terraline. The article is contributed by the editor of the journal, who is also known as the editor of the *National Medical Review* at Washington. Doctor Stowell was for a number of years the professor of physiology and microscopy at the University of Michigan, and is no novice in the art of experimenting on the lower animals. To ascertain whether terraline was digested and absorbed like other oils, or whether it acted simply as a lubricant, Doctor Stowell experimented on a number of cats. The animals were deprived of food for from thirty-six to forty-eight hours when a quantity of the terraline was forcibly administered to them. In from four to seven hours after the oil had been administered the animals were killed by means of chloroform. Immediately after death the abdomen was opened and the interior of the stomach and intestine carefully examined. The stomach was found empty in each instance; but when the intestine was opened a few inches below the stomach a yellowish fluid exuded. This fluid was examined under high powers of the microscope. It was found to consist of minute particles of oil, proving that the digestive juices had emulsified the terraline. In two instances Doctor Stowell was fortunate enough to notice in the mesentery some distended vessels which he took to be lacteals. These vessels were opened and their contents examined under a high magnifying power. The contents were found to consist of minute particles of oil so small that they were scarcely visible with a one-eighth inch objective.

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### THE PATHOLOGY AND ETIOLOGY OF CONSUMPTION.*

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CONSUMPTION is a disease in which consolidation and breaking down of the lung tissue is associated with wasting of the body. If we examine the lungs in a number of cases we find that although there are many differences in the appearances presented, these are only caused by variations in the intensity of the disease process, so far as the naked eye can teach us. We find larger and smaller masses of consolidation containing cavities which vary greatly in size. If we study the history of these cases, when we can get a record of them from the commencement, we find that there is a great variation in the duration of the disease, and on tabulating them we find that some of them have lasted for two or three years, while others have died after an illness of only as many months.

For further information we now turn to the lungs, which have been hardened and carefully prepared for microscopical examination. On examining sections of these we find two conditions, one an inflammatory change, the other a new growth. The first of these is inflammatory or pulmonary phthisis, which, when examined under the microscope, is found to consist of a mass of broken-down material without any structure, and in which there is no trace of the walls of the air-cells. Everything has become involved in an inflammatory process, which has resulted in the death of the part. The commonest cause producing this condition is broncho-pneumonia, which is essentially lobular in character, from the frequency with which it is an extension of capillary bronchitis into the substance of the lungs. The first effect of the inflammatory process on the walls of the air-cells is to cause germination of the epithelial cells of which they are composed. The newly-formed cells, together with a varying amount of leucocytes from the capillary blood-vessels, accumulate in the air-cells; these become filled with them, and *then* the capillary vessels become involved, resulting in a mass of inflammatory products through which the circulation is arrested. If the morbid process continues the affected parts lose their vitality, and portions of the lung tissue, varying in size according to the number of air-cells involved, begin to degenerate and undergo caseation, and all the original structure becomes fused into a mass of amorphous *debris*. This is ejected through those air-passages involved in the inflammatory process, and a cavity is formed. Other cavities are formed in the same manner until death takes place. There are conditions, however, in which the destruction of tissue is less or the vitality of the patient is greater, and a process of repair takes place, in a cavity by the formation of cicatricial tissue, or in a case where consolidation has not gone on to softening, but remains a solid dead mass, this acting as an irritant on, the surrounding tissues, sets up chronic inflammatory action, and a fibrous capsule is formed round it.

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* Read before the MICHIGAN STATE MEDICAL SOCIETY, at Lansing, May 3, 1894.

The second form or tuberculosis, although producing a consolidation in the lungs similar to pulmonary phthisis when seen by the naked eye, yet when sections are made of a well-hardened organ, the microscope shows the morbid change to be an entirely different one. In tuberculosis there is a new growth in the lungs. This new growth consists of a reticular fibroid tissue in which are large cells containing many nuclei—the giant cells. A consolidated mass in a lung the subject of tuberculosis may be as large as that found in pulmonary phthisis, but microscopic examination shows that it is not one large tubercle, but an aggregation of small ones. The reticular tissue in a tubercle is of a peculiar kind—it is distinctly of a fibroid character, and arises from the connective tissue of the lung; but it is not in any way like the adenoid tissue of lymphatic glands, as is sometimes stated. As this fibroid tissue grows, new blood-vessels are formed in it, and by injecting the organ these can be shown to be patent. As this fibroid tissue grows, the nutrition is cut off from the centre of the tubercle, which undergoes a kind of necrosis. In the large consolidations tubercles are found in every stage of development, the older ones with large central necrotic areas, the younger with only fibroid tissue and one or more giant cells. After a time the central necrosed portion breaks down and a cavity is formed.

These two kinds of consolidation, however, occur in another disease of the lungs, acute miliary tuberculosis, and this must be considered with the other two. Here we have a disease characterized by its rapid action, typical cases do not last long before death takes place, *and there are never any tubercle bacilli in the sputum.* Physical signs are also often absent. At the post-mortem examination the lungs are seen to be full of small nodules. When these are examined with the microscope they are found to present two distinct appearances—one form consisting of minute reticular tubercles, the other of small areas of inflammatory breaking-down, without a trace of structure—either newly formed or of the original lung. *And these two forms never occur together in the same lungs.* This disease must, therefore, be considered, if judged by the lesions found in the lungs, to be of two kinds, and the structure of the lesion shows that the one is inflammatory, the other a new growth of reticular tubercle. We have, therefore, in phthisis—using the word as a generic term—the following divisions:

(1) Inflammatory, consisting of pneumonic phthisis and the inflammatory form of acute miliary tuberculosis.

(2) Tubercular, consisting of pulmonary tuberculosis and the tubercular form of acute miliary tuberculosis.

Looking at the question of phthisis or consumption from a clinical standpoint it must be admitted that we have two distinct diseases. In the one case we have, for example, a person getting wet and catching cold, then developing bronchitis, which, extending down the air-passages into the lungs, becomes broncho-pneumonia. The consolidation produced does not clear up, as the inflammatory process has been sufficiently intense to destroy the lung substance, on the contrary it becomes softened and then expectorated, leaving a cavity, the whole condition being one of ordinary intense inflammatory action. During the progress of this case while the inflammatory action is confined to the bronchial tubes, there are no tubercle bacilli in the sputum; and animals susceptible to tuberculosis when inoculated with this sputum are unaffected by it. But as soon as the consolidated portion undergoes caseation and softening and is expectorated, numerous tubercle bacilli are found in the sputum. Now, if we turn to the clinical picture presented by a typical case of tuberculosis we find a totally different state of things. A patient comes to us complaining of a general feeling of ill-health, weakness, and perhaps a slight cough; we notice that he is inclined to stoop. On making a careful examination of the chest we are able to make out a slight dullness in one of the apices of the lungs over the clavicle. Keeping this patient under close observation we find that this dullness gradually extends downwards until it is easily mapped out below the clavicle. This goes on for some time, and then we get evidence of the formation of a cavity. The disease extends to the other lung, more cavities form, and at last death ends the scene. This condition of things may exist for two or three years before death takes place. In the majority of these cases tubercle bacilli can be found in the sputum as soon as the consolidation in the lungs breaks down, but there are a number of cases on record where the most careful investigation, by skilled observers, has failed to show any tubercle bacilli in the sputum during life or in the lungs after death, and the clinical features are the same whether the tubercle bacilli are present or not. Now, let us consider acute miliary tuberculosis. Judging this from its histological characteristics it consists of two distinct diseases —the one inflammatory, the other tubercular. In the inflammatory kind every nodule in the lungs contains myriads of tubercle bacilli; in the tubercular kind many cases occur in which there are absolutely no bacilli in the lungs, and in those in which they do occur their number is very small. In both these conditions no bacilli can be found in the expectoration, as in those cases in which they are present, they are locked up in the lungs and cannot get into the air-passages.

The generally received idea at present is, that without tubercle bacilli there is no tuberculosis. We must, therefore, exclude those cases where the clinical history, physical signs and symptoms, and post-mortem appearances clearly show us a case of tuberculosis, and yet the absence of the tubercle bacillus compels us to discredit the evidence of our own senses, and further than this the sputum from these non-bacillary cases will kill a guinea pig in two months in precisely the same manner it would do if it contained myriads of tubercle bacilli.

Under ordinary conditions the fact of bacilli or no bacilli in the sputum would not be of much importance as the treatment would be the same; but now that tuberculosis has been declared an infectious disease in this state, and the tuberculosis that is infectious is the tuberculosis with the tubercle bacilli, it becomes a matter of the utmost importance that the nature of these non-bacillary cases should be decided, as it will be a very serious matter if all bacillary cases are isolated in some special hospital, and yet these non-bacillary cases, which are capable of spreading the disease, as has been clearly shown by experiments on susceptible animals, should be allowed to remain at large to infect the community.

## RESECTION OF THE KIDNEY.*

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After having nearly reached the limits of possibility in surgery it is natural that, with increased experience, a conservative tendency should make itself felt. This tendency has found practical application in surgery upon the ovaries, thyroid gland, et cetera, and it was, therefore, but logical that an organ of such vital importance as the kidney should also share the benefit of this conservatism. The most important point in this question was to find out whether the wound surface of a resected kidney would heal without leaving a permanent urinary fistula. Experiments on dogs, rabbits, and guinea pigs revealed the fact that such wounds heal rapidly, and that a comparatively large portion of the kidney can be removed without any appreciable functional or constitutional disturbance. Such experiments have been carried on by **Maas**, **Tillmanns**, **Pisenti**, **Eugenio di Mattei**, **Tuffier**, **Podwissozky**, **Barth** and others, and detailed descriptions were given of the process of healing and cicatrization. Although these authors do not fully agree in their observation upon the histological changes which take place after resection, they, at least, all establish the fact that considerable portions, up to one-third, may be removed from one or even both kidneys with impunity. **Tuffier** found the excretion of urine reëstablished to its normal quantity in a few days. He claims that the compensation is due partly to hypertrophy of the parenchyma of the kidney, and partly to new formation of the glomeruli; at least his observations on animals, where one kidney was removed totally and a portion from the other, tended to lead him to such an assumption. His experiments further tend to show that for each kilogram of weight of an animal one to one and one-half grams of secreting parenchyma is required. If we estimate the weight of man one hundred and forty pounds we should need about three to four ounces of kidney substance, not including the capsule; this would make about one-third or one-fourth of our real supply.

**Barth**, of Marburg, in a recent contribution, which shows careful study and observation, describes the histo-pathological process which takes place after wounds or resection of the kidney. About forty-eight hours after resection he found the wound agglutinated and the wound cavity filled in all its recesses with blood coagulum. Between these wound surfaces, even if primarily healed, a

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* Read before the Detroit Medical and Library Association.

delicate layer of fibrine is deposited, reaching down to the coagulum and on the outer side of the capsule a thin layer is equally spread. The latter covers the defect of tissue caused by the incision and projects into the tissue spaces. Leucocytes are uniformly scattered over in this clot of blood, except along the edges where they form a strong wall between the living tissue and dead coagulum. Hemorrhage takes place regularly in the parenchyma adjacent to the wound. The capsules of the glomeruli, and the convoluted and straight tubules which have been severed by the knife, are for some distance filled with extravasated blood. Besides, we invariably detect a limited interstitial hemorrhage having direct connection with the coagulum in the wound cavity. More serious than the above changes are the nutritive changes of the parenchyma as a result of circulatory disturbances. We know that the tubular epithelium is very sensitive to vascular changes and that the peculiar arrangement of circulation in the kidney is not very favorable to rapid compensation. The direction of the cut has a great influence upon the extent and degree of the parenchymatous lesion bordering on the wound. A longitudinal resection entails the least damage to the tissue as the two longitudinal halves are supplied separately with blood-vessels. Lateral deep resections may be followed by total necrosis of the parenchyma and connective tissue if, beside the ascending arteries, those of the arcades have been severed. Paoli made the assertion that any lesion of the kidney would be followed by a toxic desquamative nephritis owing to the retention of waste products in the urine. Barth, however, does not agree with him on this question. He found no anatomical changes in the segments outside of the zone of lesion, not even in cases where one kidney had been removed totally and the other resected, and these examinations were made two days after the operation. In the course of eight to eleven days the process of healing seems to be completed. The original blood clot in the wound cavity is replaced by firmer granulation tissue, dotted over with hematoidin crystals. These crystals are mostly found in the connective tissue cells, and are so persistent that they are still visible in very old cicatrices. Very often we find in the cicatrix and its vicinity, between the thin uriniferous tubules which are covered with new epithelium, broad cylindrical formations giving a dark blue stain on hematoxylin, but showing no reaction upon any other stain. These formations are the debris of necrosed tubules revealing at times still remnants of cells. They do not lead to calcareous degeneration, yet they may be found in old scars of the kidney. This stage of connective tissue proliferation is followed by that of atrophy. The more extensive the resection has been carried out the broader the zone of shrinking of the parenchyma. The glomeruli are packed closely together, their capsules are mostly thickened and dilated. The blood-vessels, as a rule, are well preserved and can be readily injected. In the neighborhood of the cicatrix they are frequently atrophied and obliterated, and adhere to the wall of the thickened capsule like a small deformed appendix. They plainly present a picture of destruction, more so than that of degeneration, nor is there the slightest trace of a new formation of glomeruli in the cicatrix or its vicinity. The tubules are very much crowded together within the area of atrophy and filled up with young, regenerated epithelium. These tubules may grow into the cicatricial tissue, and there we see two rows of slender epithelial strings of different shape and length; their connection with the old tubules of the adjoining parenchyma is often visible. They may be straight or convoluted, and it is not very probable that they are old tubules invested with new epithelium, since the cicatrix shows off plainly against the shrunken old parenchyma. The border line may be distinctly recognized by a genuine wall of glomeruli, which are the least destructive elements of the injured parenchyma. No great significance, however, can be placed upon this meagre new formation of tubules as a substitute of the lost parenchyma, since the cicatrix will never be replaced by glandular tissue. As in interstitial nephritis we may also here witness the formation of cysts within the atrophied area. They may be caused by retention of urine in the compressed or obstructed tubules, and are most frequently found in the line between the medullary and cortical portion. Their size is varied, the single layer of epithelium lining their walls may begin to proliferate and protrude in the shape of a cone into the interior of the cyst, or be cast off as debris. The shrinking may not be limited but assume the character of a diffuse process. The superficial cortical layers especially show extensive areas of shrinking or obliteration whilst the deeper medullary portion is fully preserved. The convoluted tubules are enormously distended, the epithelium enlarged, and in the dilated glomerulus capsules abnormally large convolutions are visible, a genuine compensatory hypertrophy, demonstrating at the same time the way nature adopts to make up for the loss of kidney substance.

This diffuse shrinking may, no doubt, occur without septic infection, as in reckless destruction of renal arterial branches. **Barth** noticed it mostly in longitudinal resections in the middle of the sac where he removed a good portion toward the hilus, colliding thereby with the blood-vessels. As the poles of the kidney were free from atrophy it cannot be assumed that septic processes were here at play. Based on these observations we may safely follow **Tuffier's** directions to make a radial cut in nephrotomy, whereas in resection a transverse or wedge-shaped excision of the pole of the kidney should be made. In deep resections where the pelvis of the kidney is opened we find after a few weeks granulation tissue under the scar which is very vascular and rich in cells; toward the pelvis it is covered with irregular, proliferating epithelium. To all appearance an ulcer must have been the result of the lesion which, later on, was covered over with epithelium extending from the mucous membrane of the pelvis. From all this description we may see that in resection of the kidney nature makes a certain, though futile, effort to regenerate the removed tissue. The tubular epithelium may, by way of proliferation, replace the desquamated epithelium, but the stunted formation of the tubules in the cicatrix seems to be abortive. Contrary to the views of **Tuffier** and others the experiments of **Barth** force this author to the conclusion that a new formation of glomeruli in a fully developed kidney never takes place; that we simply have to deal with a compensatory hypertrophy. **Barth** has since had occasion to verify the results of his experiments in the human kidney and found there changes and conditions analogous to that of the dog.

As far as I can see it was **Czerny** who made the first typical resection of the kidney, in November, 1887. He made an incision into a bluish, fluctuating mass, situated at the convexity of the upper and middle third of the right kidney. He also removed with a spoon a grumous mass from its pelvis. The patient made a good recovery. **Kümmel** has since reported three cases of his own, one for stone and abscess, the second for circumscribed inflammation, and the third for echinococcus. In the latter case he removed nearly half of the kidney, but left the pelvis intact. The wound was sutured and, as hemorrhage continued, the kidney stitched to the muscles and skin. SOCIN, BARDENHEUER, DE PAOLI, and WAITZ have also reported cases. The case of WAITZ yielded pus on puncturing, and on incision it proved to be a large abscess cavity with sinuous recesses and multiple foci. The hilus was surrounded with such broad and firm fibrous adhesions that complete enucleation would have proved very dangerous. He, therefore, resorted to resection of the walls of the abscess but, as the patient was extremely feeble and the hemorrhage profuse, he applied ligatures to different portions and cut off the tissue. The patient, although very much collapsed after the operation, followed a protracted course to recovery, though free from fever.

My case of kidney resection is probably the first one in this country and may, therefore, prove of some interest.

JAMES W., aged forty years, from Elmore, Ohio, came to my office on February 16, 1894, accompanied by his physician, DOCTOR R. A. WILLETT. Patient lived for some years in Michigan, but about thirteen years ago came back to Ohio, his old home, as he said, to die from consumption. After this change, however, he began to improve again, and his health was quite good up to last October. On the 3d of that month he was kicked by a horse over the region of his right kidney, but went to work again after the accident. About one week later he was pushed by the same horse against the manger and injured in the same region. From that time on he felt pain continually in that locality, and was unable to perform work of any account. He passed blood occasionally in the urine, thoroughly mixed with the latter. Of late he noticed blood at nearly each micturition, had shooting pains through and through, had chills also, but very seldom fever. He gave his weight at one hundred and forty-eight pounds, looked somewhat sallow, his right leg was slightly stiffened, had pain on stooping. A tumor could be felt reaching from the liver down to a level of the umbilicus and about one inch to its outside. It was painful on pressure in front and in the lumbar region, slightly movable, hard, smooth and not nodular. The percussion note of the colon revealed that it was separated from the liver, and, as it did not move with the respiration, the diagnosis that it belonged to the kidney was made rather positive. He passed slightly bloody, diffusely colored urine in my presence, specific gravity 1020. The microscope showed no trace of pus, but simply red blood corpuscles. Taking his history into consideration a tubercular kidney was uppermost in our minds, and as the left kidney was apparently intact, I advised an operation to which the patient readily consented as, according to his view, his father died from a similar trouble, and he was not willing to undergo the same amount of suffering.

On February 20 I performed the operation at patient's home. BERGMANN'S method of incision was followed about five inches long, the capsule was readily reached without any special hemorrhage except from the first lumbar artery. A trocar introduced into the tumor gave us no clue in regard to its contents. I, therefore, made an incision and with my fingers scooped out between two and three pounds of solid, cheesy substance, of the appearance of coagulated fibrine, but no pus. I cautiously peeled out the sac and finally got hold of the kidney, which was located high up. On trying to separate the capsule from the kidney a small piece of its substance near the lower pole was torn from it, leaving a deeply lacerated surface behind. This laceration had a stellate form, and at its bottom a small cyst, about the size of a cherry, was found. I considered it at the time of the operation a tubercular focus, but on closer examination thought it to be a hemorrhagic cyst, since its walls were not ulcerated. In my opinion the kidney was undoubtedly lacerated at the time of the accident, as I found some cicatricial tissue about these lacerated fragments. As the rest of the kidney proved healthy on palpation I considered it best to remove the cyst and trim off the edges of the wound which looked quite ragged; in this way I removed one ounce of kidney substance by a transverse resection. The hemorrhage was very moderate, as I compressed the kidney until it was stitched to the wound. A tampon of iodoform gauze was placed over it to compress the wound surface, strips were also placed into the wound cavity on both sides of the kidney for drainage, the sac having been removed completely.

On February 27, I received the following letter from Doctor Willett: "Our kidney case is making a speedy recovery. He feels strong, looks good and has a prime appetite. He passes a normal amount of natural-looking urine since the third day after operation. The anterior half of the wound is entirely healed, the posterior part, which had the most gauze in it, is open, but presents a nice granulating surface, with scarcely any discharge. The temperature was never 100½°. He has no pain. I am well pleased with the progress of the case."

I received another letter from the doctor, dated March 15, wherein he stated: "I saw Mr. W. this morning, the first time since Monday. He now sits up in chair some, has good appetite and feels good generally. The wound is entirely healed, with the exception of a small opening in about the middle of the incision. For the past ten days it has been discharging a watery fluid quite freely, but had no odor of urine until this morning, when it was quite perceptible. During this time he has been passing twenty-two ounces every twenty-four hours. They have found it necessary to change the dressings about every eight hours, until the last two days, when twice every twenty-four hours have been sufficient. The amount of discharge seems to be gradually decreasing. He would walk around the house if I would permit him. I think he is doing remarkably well."

A report dated April 14 states that patient is up and walks around the house about seven or eight hours a day, and that he feels as well as he ever did. The wound is closed with the exception of a small sinus through which some urine passes; this is gradually closing. The amount discharged is much less than at the time of last report. On March 20 the doctor was sent for in haste and found patient having severe pain, similar to renal colic, which lasted three hours. Patient said that for twenty-four hours previous to this the amount of urine was greatly decreased. Nothing similar has occurred since, and from later reports his complete recovery seems to be assured.

## RÉSUMÉ.

Barth's observation, that in resection of the kidney we have not to expect a new formation of glomeruli, but simply a compensatory hypertrophy, seems to be well founded. A considerable portion of kidney substance can be removed with impunity. A longitudinal incision is the best in nephrotomy. The pelvis should also be reached through such an incision to prevent a permanent fistula. This has already been done successfully by **Israel**.

The hemorrhage is best controlled by compression of the kidney, stitching the resected surface to the wound, and by application of a tampon. In resection a transverse or wedge-shaped excision is preferable as we save more kidney substance.

Malignant growths or tubercular kidney will furnish no indication for resection. It may, however, be resorted to in benign growths as echinococcus, in pyonephrosis in injuries like mine, or gun-shot wounds.

## TREATMENT OF SYPHILIS.*

By A. H. STEINBRECHER, M. D., Detroit, Michigan.

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It is not my object this evening to give an exhaustive resumé of the treatment of syphilis, but more especially to call your attention to the inunction method. I am aware that we must not pin our faith entirely on one form of treatment, but experience has taught me during the past four years that this method judiciously applied has met every indication.

The therapy in syphilis must be directed both to the local and constitutional symptoms. Our object is to introduce into the organism drugs which will either eliminate the poison or destroy its poisonous effects. No doubt it is conceded by most syphilographers that the drugs mercury and the iodides fill these indications. That mercury destroys or renders the poisonous effects of the syphilitic virus inactive cannot be doubted if the experiments made by **Boeks** can be depended upon, in which he takes one drop of pus from a syphilitic ulcer, adds to this one drop of sublimate solution, and then endeavors inoculation with negative result. The same experiment was repeated, substituting solution of iodine, but he found that this did not destroy the potency of the syphilitic poison. From this he deduced this conclusion: That mercury was a remedy directly affecting the syphilitic poison; that iodine had no effect directly. **Von Sigmund** holds that the iodides act indirectly: given to a syphilitic individual they produce elimination of the syphilitic virus. As an eliminative agent, the hot air and hot water baths serve as a powerful adjunct with the mercurial treatment. **Borovsky**, in a series of experiments, made the following deduction: That the bath increased the elimination of mercury through the kidney and the sweat glands. The higher the temperature the greater the degree of elimination. The cause of this intensified excretion of mercury is due to an increased systemic metabolism, accompanied by the disintegration of the mercurial albuminate. Where heart complications exist great care must be exercised.

Having satisfied ourselves that mercury, the iodides, and heat are our therapeutical agents where and when shall we begin to apply them? Under ordinary circumstances we do not begin the treatment of syphilis until secondary symptoms manifest themselves. It has been conclusively proven that the abortive treatment delays the secondary symptoms, and, that instead of rendering them milder when they do appear, they are more severe. **Kaposi** relates a case in which, upon the appearance of the primary lesion, he began treatment, giving one hundred inunctions, but secondary symptoms came on subsequently. This no doubt has been the experience of us all. Again, early abortive treatment clouds our diagnosis. If secondary symptoms do not appear, or we fail to observe them, the question will confront us, Has the individual syphilis? This doubt and uncertainty can be cleared up to our entire satisfaction by waiting for developments. However, in exceptional cases we are obliged to institute early constitutional treatment in those cases where the infiltration surrounding the chancres is very great; where phimosis, gangrene, or a phagedenic condition exists; where the lymphatic glandular enlargement is considerable; where the primary lesion involves the lip or any other exposed surface of the body—otherwise we wait until secondary symptoms appear. In the meantime we are treating the primary lesion and preparing our patient for the subsequent treatment. We examine his mouth. If carious teeth are present have them filled or extracted; if tartar surrounds them it should be removed. The stomach and intestines should be put in good condition. If the individual is weakly and anemic, tonics, such as cod-liver oil, iron, quinine, and strychnine should be administered. Everything should be done to increase his well-being, as far as it is possible. Directly that we are satisfied that we have secondary manifestations we begin to employ our therapeutic agent. Formerly, we were instructed to use mercury for the secondary and the iodides for the tertiary symptoms. This arbitrary ruling does not hold good at the present day. We know that the mercurial preparations are indicated during both the second and tertiary stages, and under certain circumstances the same rule applies to the iodides. I have followed the rule which **Fuiger** has laid down,—that during the secondary stage where we have an erythematous, a soft papular or macular eruption in a robust individual, use mercury. In another class, where a dry, scaly, or pustular eruption is present; where the symptoms are very severe; in those malignant forms met in cachectic individuals, mercury and the iodides are given. In the secondary stage when psoriasis is present, use mercury. In the tertiary stage, where the symptoms are mild the iodides are indicated. If the results are not immediate, the mercurials must be added. In all cases in the tertiary stage where the symptoms are very urgent no time should be lost in introducing mercury into the economy either by the inunction method or by the hypodermic syringe.

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* Read before the Detroit Medical and Library Association.

Having determined to use mercury how shall we introduce it into the organism? The most efficient methods are through the external epidermis or the inunction method, and under the epidermis or the hypodermic method, and no doubt the most inefficient means is by the digestive tract. We know that all preparations of mercury irritate the gastro-intestinal canal, hence only small doses can be given, it in many instances producing colicky pains and diarrhea. We can prevent this by combining the drug with opium, but this is not an expedient which we would like to continue for a long time. The internal treatment is inefficient in combatting the severer symptoms, both during the secondary and tertiary stages. During the tertiary stage when we desire to obtain a very rapid result it cannot be depended on. It is efficient in those mild cases characterized by slight erythema or soft papular eruption, and no doubt in hereditary syphilis. I think that this method cannot be sufficiently deprecated in many cases. I have tried the different internal remedies faithfully for nine years but have always felt that I was dealing with an uncertain quality. I could not depend upon its action. How many among us can testify to the fact that they have prescribed the protiodide, for instance, for years to the same patient, and given it according to the plan of FOURNIER or RICORD—given it persistently—but still relapse after relapse would take place. Many of the symptoms would persist until the patient would become discouraged and we lose confidence in our remedy. How many do we not meet with who continue to have glandular enlargement, notwithstanding we have given them mercury and the iodides.

The hypodermic method no doubt is one of the most efficient ways of introducing mercury into the system. It has many advantages: it is easy of administration, accurate in dosage, is cheap, rapid in action, need not be given daily except under certain circumstances, and what is of great importance, the physician gives it himself; it can be given where the inunction treatment is contraindicated on account of the irritability of the skin; it is indicated in all cases where a rapid action is desired; but it has one very great drawback—it is very painful. Some advocate introducing the needle under the skin, others (and I think this is to be preferred) plunging the needle into the gluteal region, after which massage should be made for at least half an hour to hasten absorption. This, I think, causes the least pain, but usually our patients will not submit to the treatment for a long time and the method must be abandoned.

The inunction method, the oldest and most reliable, and I dare say presently will be the universal one, is indicated where rapid action is required when vital organs are affected—as the eyes, nervous system, larynx, in periostitis, ostitis, in ulcerative processes, when rapid destruction of tissue is taking place; in the severe secondary stages when we have psoriasis, condylomata, the hard forms of papular eruption; in all cases in which we have relapses,—in fact, at any time during the secondary and tertiary stages. It has this advantage that it rests the stomach, allowing us, if required, to give tonics, et cetera. It is contraindicated in individuals whose skin is very sensitive, producing severe forms of dermatitis. This can frequently be prevented by exercising great care in preparing the skin, by giving suitable baths, with or without a disinfecting agent, or by diluting the agent which we use with vaseline. I have made a practice of advising the individual to take a bath before each inunction; also to take during the whole course of treatment, from one to two turkish baths per week. By this means the skin is kept healthy and thereby assists in the elimination of the mercury. When individuals are hairy the same precautions should be observed. One of the most serious objections to this method is the rapidity with which salivation and stomatitis takes place. This, however, can be overcome by exercising the greatest care, particularly in regard to the hygiene of the mouth. The patient should be instructed to bathe the mouth, brush the teeth and gums frequently with an antiseptic wash containing an astringent such as listerine and tincture of myrrh, potassium chlorate and tannic acid, et cetera. It is imperative during the whole course of the treatment, that we frequently examine the patient's mouth as salivation comes on rapidly and usually with very little warning. Other objections are that the procedure is dirty and the odor unpleasant, but with a little argument we can usually induce the patient to tolerate these unless secrecy is necessary, when we are compelled to employ some other method. Beside exercising care with the mouth, the general hygiene of the individual must be attended to. The patient should wear warm clothing, the diet should be bland and rich, the chewing of tobacco interdicted, smoking indulged in moderately, and to be stopped entirely if mucous patches are present in the mouth.

The preparations which are usually employed are either the unguentum hydrargyrum or unguentum of the oleate of mercury. The former is to be preferred inasmuch as it is less irritating to the skin. If this is the case, however, an equal quantity or more of vaseline can be added which makes it more bland and I think will meet every indication. Under ordinary circumstances, we begin our treatment by employing from thirty to forty-five grains of the blue ointment. In prescribing the ointment we have this quantity put up in oiled paper thereby assuring accuracy in dosage and rendering it convenient for our patient. The contents of one package is now applied over a given part and thoroughly rubbed into the epidermis. This operation should require about fifteen to twenty minutes. This can be done either by the patient, the physician, or an attendant by means of the bare hand or protected with a rubber glove. LASSAR employs a unique way. He uses a glass pad on which a handle has been fused. The most convenient time for the patient is to make the inunction in the evening. Having previously taken a bath, we begin the first evening with the chest; the second evening the application is made on the abdomen; next evening on the thigh; the following evening the other thigh; then the leg; the sixth evening the other leg and foot; the following evening one arm; then the other arm; the ninth evening the back. This should be continued daily unless symptoms of salivation are manifest, which does not contraindicate its continuance, but we must reduce the quantity. Instead of using forty-five or sixty grains, we use from twenty to thirty grains. In the meantime, the patient has been averaging one turkish bath a week. If salivation is pronounced we advise him to take two or three baths per week. In a few days the gums have sufficiently recovered so that we can continue with our original quantity, and one turkish bath. The question arises, How long shall we continue the treatment? At least four or five months, as follows, without an interruption: If our patient has made thirty to sixty rubbings and all symptoms have disappeared, we now increase the intervals between the rubbings. Instead of employing them daily we now order that they be taken, at first, every second day, then every third day, this to be continued until the end of the fourth or fifth month, allowing one month of rest; commencing again at the sixth month and continuing until the end of the eighth month, giving another rest of one month, then resuming the inunction to the end of the twefth month which completes our first year of treatment.

In mild cases after thirty or forty rubbings, or less, all symptoms will apparently have disappeared and we may be tempted to discontinue treatment, but if we bear in mind NEWMAN's investigations by microscopical examinations of the skin in seven cases of syphilis wherein the eruption had disappeared from view for a period of four to eight months—in which he found that there was a considerable infiltration of round cells in the cutis and its annexa in the vessels, sebaceous hair follicles and sweat glands with and without pigment—it teaches us that the syphilitic cell may exist without any external manifestation. This is also an argument for the external application of the mercurial inasmuch as it comes in direct contact with the syphilitic cell.

In regard to relapses, syphilographers are united in the opinion that they usually occur about every three to six months for several years and in many instances much longer. **Fuiger** states that the first year they occur about the sixth, ninth and twelfth month; the second year about the third, sixth, ninth and twelfth month, and the third year about the sixth and twelfth month. It is, therefore, important that we anticipate this contingency and continue treatment. During the second year of the disease, if relapses recur we should continue treatment as outlined during the first year. If, however, no relapse occurs we will institute treatment about the sixth and twelfth months, continuing for a period of one month. During the third year of the disease, one month of treatment, given about the sixth and twelfth months, should be sufficient.

The iodides should be given during the second and third year, preferably the sodium iodide, in doses of ten to twenty grains, three times a day. This can be given for a period of one month during the intervals of rest, and in conjunction with the turkish bath should complete our treatment unless relapses recur, when we must continue as indicated in the second year.

I would like to report a few cases demonstrating the utility of this treatment.

*Case I.*—That of a boy baby. Parents deny speoific trouble. However, the mother had given birth to three matured dead children. The present child was born alive, I am certain, as the result of my having induced labor at the end of the eighth month of pregnancy. The child was born apparently healthy and immediately thereafter I advised treatment. They are ignorant people and objected. Five weeks afterward (November, 1892) I was called and found very marked coryza, the discharge from nose producing excoriations about that organ and the mouth; a marked conjunctivitis; and an eruption simulating a papulo-squamous syphiloderma covering the face, neck, and more or less over the whole body; the right testicle very much enlarged; the scrotal tissue presented the same condition as the face, very much thickened. The child's appearance was very pitiful indeed. Put the little one on inunctions of fifteen grains of the oleate of mercury with three parts of vaseline. This was continued daily for five weeks, at the end of which time the symptoms had entirely disappeared. I now advised continuance of treatment every second or third day which was done. The people have left their former abode, hence I do not know what became of my patient. However, this case demonstrates the utility of the treatment in hereditary syphilis and the rapidity with which the symptoms will disappear by external medication.

*Case II.*—Mr. D., telegraph operator, twenty-seven years of age, robust, healthy appearing individual. Saw him May 28, 1892. He presented an indurated ulcer on glans penis, which I cauterized and thoroughly destroyed with the Paquelin cautery. The wound was dressed with iodoform and bathed daily with 1–4000 sublimate solution. It healed in sixteen days. Five weeks afterward a macular eruption spread over the face, neck, et cetera, and a few days later the appearance of mucous patches in the mouth was observed. The hair now began to fall out and very marked induration of the glands of the neck was manifest. I treated the mucous patches with a sublimate solution and astringent mouth washes. Put patient on inunction of forty-five grains of unguentum hydrargyrum. After employing thirty inunctions all symptoms had disappeared, but treatment was continued as previonsly indicated. The one symptom which responded alone to the treatment was the glandular enlargement of the neck. Saw patient several weeks ago and the enlargement had almost entirely disappeared. I think that glandular enlargement is an indication for continuous or interrupted treatment. During the past year I have been giving him twenty grains of the iodide of sodium each month during the intervals of rest. He has also taken one turkish bath weekly. This is undoubtedly one of those mild cases which would have responded to internal medication with good result.

*Case III.*—Mr. G., a plumber, aged twenty-nine years, an anemic and cachectic looking individual who contracted the disease five years ago, came to me during the month of October, 1891, and stated that during this whole period he had taken either the mercurial or iodide preparations, either with the advise of a physician or on his own responsibility; that he had taken thousands of protiodide pills but had never been entirely free from symptoms. On examination I found enlargement of cervical and inguinal glands, a slight papular eruption scattered here and there over the body, mucous patches in the mouth—which symptom had been persistent most of any, on the palmar surface of the left hand spots of thickened epidermis, evidently psoriasis. Began treatment by giving patient pill of strychnine, arsenic and iron; also emulsion of cod-liver oil. This was continued for several months. In the meantime he was employing forty-five grains of unguentum hydrargyrum by inunction. After fifteen inunctions had been taken I was obliged to reduce the quantity on account of slight salivation, and continued by using thirty grains every second day. The mouth was treated by applying solution of the tincture of iodine compound and glycerin and advising two turkish baths weekly. After ten days the original quantity was used again and continued until the end of the third month, after which I gave him twenty grain doses of sodium iodide. This treatment was continued at interrupted periods. Discharged patient last year and there has been no recurrence.

This illustrates one of those cases of which Taylor tells us that the continuous use of mercury by stomach ingestion induces a condition of tolerance and after a time ceases to be a therapeutic agent and has no effect.

*Case IV.*—Mrs. H., fifty-six years of age. Contracted the disease from her husband years ago. Secondary manifestation never very marked. She had been under treatment for a long time, however. When I saw her she complained of severe pains between right intercostal spaces, tingling and burning of hands and feet—which paresthetic condition had existed for a long time, severe headaches, and insomnia. Suddenly she was attacked with vertigo, her gait became uncertain, had slight contraction and twitching of muscles of the face, and she became very much alarmed. I put her on sixty grain inunctions of the unguentum hydrargyrum. In ten days all urgent symptoms had passed. Continued treatment interruptedly, combining with it the sodium iodide. She has made an excellent recovery.

This case demonstrates the utility of mercury in the tertiary stage, also the rapidity with which the inunctions act.

Will conclude by saying we all appreciate that the more thoroughly and systematically we treat this disease in the beginning, the less liable are we to have later and more serious manifestations, and I earnestly think that if we treat this disease as I have tried to indicate, recurrent and third stage manifestations will be the exception.

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# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, FEBRUARY 19, 1894.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### PATHOLOGICAL SPECIMENS.

DOCTOR LONGYEAR exhibited a specimen of carcinoma of the uterus where there had seemed, before the operation, to be involvement of the cervix alone, but on opening the uterus it was found that the disease had its beginning at the fundus. The uterus was removed by a vaginal hysterectomy. The operation was attempted with ligation of the ligaments but on account of the thickness of the ligaments it was necessary to make use of the clamp. The patient made an uninterrupted recovery.

### DISCUSSION OF PAPERS.

DOCTOR MANTON read a paper entitled "What Results may be Expected from Removal of the Appendages in Cases of Hysteromania and Kindred Neuroses." (See April number of The Physician and Surgeon).

DOCTOR LONGYEAR: I would concur with the deductions of the author especially in regard to the second class of cases which he cites. The removal of normal appendages is not justifiable; the results are disappointing. In the case of the other sex it would not be considered justifiable, or even thought of, to remove the testicles for mania. It is not always possible to tell whether the appendages are normal or not; an exploratory laparotomy in doubtful cases is always justifiable. Diseased organs sometimes result as a sequence from the exanthemata with resulting loss of glandular structure. There is no question but that the gynecologist should work with the alienist in mentally diseased women. The trustees of some eastern asylums have stopped the work of the gynecologist entirely; this is a reaction from the late furore for operating. There is a medium course, however, which can be, and should be, followed. The laity who have control of asylums should be educated to allow necessary surgery.

DOCTOR CARSTENS: I think that the whole question hinges on a matter of correct diagnosis. In some cases insanity may become milder in consequence of operation. Insanity in some cases may be cured apparently by operation, but the patient may subsequently relapse as occurs in cases where there has been no operation. In all cases we should be extremely guarded in our prognosis. Cases of puerperal insanity are sometimes cured by proper treatment. The septic infection of the uterus may extend to the tubes and ovaries, and may cause such changes that we may have structural manifestations. The element of time is an important factor in these cases. If the reflex condition is of short duration, we may have a cure following operation; however, if the condition is one of long standing with pathological changes in the nerves of the organs extending, perhaps, even to the spinal column, the operation will be negative in its results

There are, however, a few cases which have been cured by operation even after a long time. From this fact also we should be guarded in our prognosis. Questions in regard to the propriety of operating on patients afflicted with epileptic seizures are very perplexing ones. If the appendages are removed when there is no disease we bring discredit on surgery. I agree with DOCTOR MANTON that we cannot be too guarded in these cases. Another form of neuroses hard to classify occur in women lacking will power who are to be regarded as somewhat hysterical but not really so. I have had a number of such cases sent to me for consultation where the patient or her friends expected an operation. I have been unwilling to operate unless examination shows structural disease, particularly in spinsters. The operation would be of no avail as a general thing in cases advanced in years, though it might bring about some amelioriation of the symptoms. Occasionally a disappearance of the distressing symptoms is noticed only after a lapse of two or three years.

DOCTOR HITCHCOCK: We are in somewhat a transitional period at present between the time when insane women were all thought to be capable of cure by pelvic operation, and a time when the consensus of opinion has suffered a reaction. One good has, however, resulted, as shown in the fact of the appointment of proper women attendants in the asylums. No one will say that insane women are not subject to gynecological troubles as well as those who are mentally sound. It is an interesting fact that after the nervous equilibrium has been disturbed a number of times it will suffer subsequently even after the cause has been removed. Such a case occurred with a young man who was in the asylum at the time I was one of the resident physicians. He would have epileptic seizures which would certainly deceive even an expert. He afterward wrote a letter to the superintendent that he had feigned epilepsy in order to avoid working. He was able to resist all attempts at discovery and could have a convulsion, as it were, to order. He afterward came back to the asylum a confirmed epileptic from simply force of habit. This same thing applies also to cases of hysteromania.

DOCTOR ALONZO BRYAN: Cases of recovery after operation are often more apparent than real. There is oftentimes a latent insanity before disease of the tubes and ovaries appears. In such cases operation detracts the attention of the patient as would also take place from a change in scene. Operations help hereditary or evolutionary insanity more than any other class of cases.

DOCTOR MCGRAW: I was very much pleased with the paper which the doctor has presented this evening, and I think he has taken a very just view of the subject. I would, however, take issue with DOCTOR CARSTENS about the septic factor in puerperal mania. We rarely see mania in other cases of sepsis. Personally, I have seen cases of puerperal insanity where there was no rise of temperature at all.

DOCTOR CARSTENS: I meant that puerperal insanity was often due to sepsis, perhaps generally. I would not say that all cases of puerperal insanity are due to septic intoxication.

DOCTOR MANTON, in closing the discussion, said that very little had been done until recently in asylums for the relief of insane women suffering from local disorders. He believed that he was the first gynecologist regularly appointed to an asylum staff, and during the past few years, at the various institutions for the insane with which he was connected, he had had extensive opportunities for observing the effects of local disease on the mental condition of the patients. He could not agree with **Doctor Hitchcock**, since there were no statistics on the subject save those which he himself had at various times presented, and those of **Doctors Rohé**, of Catonsville, Maryland, **Kirkley**, of the Toledo asylum, and **Reed**, of Cincinnati. **Joseph Price** had started in, and much might have resulted from his observations had not he been headed off by the Pennsylvania Board of Corrections and Charities. He agreed with both **Doctor Carstens** and **Doctor McGraw** as to the causation of puerperal insanity, it being due in some cases to septic infection and in others not. In one case which he saw at Pontiac mania was due in the first place to septic infection, and undoubtedly further increased by enormous doses of quinine which the attending physician had prescribed. This patient had septic infection, localized peritonitis, crural phlebitis, quinine packing, and double pneumonia, but finally recovered both physically and mentally. In all the cases (hysteromania, et cetera) but one, upon which he had operated, the appendages had been diseased. In every instance the operation had been followed by mental amelioration.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, MARCH 19, 1894.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### PATHOLOGICAL SPECIMENS.

**Doctor McGraw** exhibited an interesting specimen of extrauterine pregnancy removed by operation from a case in which he was called for consultation by **Doctor Helen Warner**. The patient, thirty-five years of age, had always been perfectly regular in her menstruation until the time of the present trouble. The 30th of November was the regular time for her being unwell. The 12th of December she was again unwell and flowed for six days. From the 16th of January she was again unwell and flowed quite continuously for some time. On the 1st of February she had an attack of a severe pain over the region of the left ovary. About ten days later she had three or four severe attacks of pain again in the left ovary; there was no fever but a bloody discharge from the womb. The diagnosis of extrauterine pregnancy was made, and the patient was operated upon. The uterus, upon opening the abdomen, was found to be retroverted and firmly bound down by adhesions. The tube was found with an enclosed clot and the cavity between the broad ligaments was found filled with clotted blood. The mass removed seemed to be undoubtedly placental tissue. The woman had never been pregnant.

**Doctor Carstens**: This case is certainly a very interesting one, and shows that women who have been sterile and then have disturbances of menstruation, with irregular flowing, should be considered as possibly having an extrauterine pregnancy.

### DISCUSSION OF PAPERS.

**Doctor Flintermann** read a paper entitled "Remarks on Acute Nephritis." The discussion was opened by **Doctors Imrie** and **Steinbrecher**.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, APRIL 26, 1894.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### EXHIBITION OF PATIENTS, SPECIMENS, ET CETERA.

**DOCTOR CARRIER** exhibited a boy ten years old upon whose chin and neck was a large patch or isolated group of comedones. The boy, three years before, had had a nevus on his chin; he had also been afflicted with acne. The case was interesting on account of the occurrence in so young a patient, and on account of the size and hardness of the comedones.

**DOCTOR LONGYEAR** exhibited a specimen of ovary and tube removed three day's previous, interesting as showing what an ovaritis can bring about in four months. The tube was not distended but the ovary was a mere shell. The woman had been healthy up to four and a half months ago, when she evidently had an attack of pelvic peritonitis and was attended by a homeopathic physician. Two weeks later I was called in to see the case. I found the woman up and dressed, the temperature 100½, the uterus and ovary fixed and a mass of adhesions. I put the woman in bed and commenced general and local antiphlogistic treatment. The patient remained in bed for two months, but the pain increased and the general health declined; she was subject to hysterical nervous attacks; menstruation was not attended with pain. I recommended operation and found the tube and ovary imbedded in a mass of adhesions as large as a goose egg. The specimen is interesting as showing the condition of affairs after four and one-half months of ovaritis. The tube is not diseased except as it was influenced by the surrounding inflammation. The husband had had a mild attack of gonorrhea, and there was evidently a connection between the two troubles. No pus was found in either tube; no pus, but clotted blood and serum were found in the ovary. The abdomen was not washed out but sponged; the incision was sewed up with a buried animal suture.

**DOCTOR CARSTENS**: This is a very interesting case as it is quite peculiar that a gonorrheal salpingitis should cause an ovaritis. There is no doubt that gonorrheal poison from the vagina may enter the uterus, travel up the tube and reach the ovary. The inflammation there set up may, by pressure, interfere with the nutrition of the organ, and we may have the development of an ovarian cyst.

**DOCTOR LONGYEAR**: I believe that there is a difference in the strength of the gonorrheal virus, it being quite plain that in the case of the husband the attack was very mild, as it only ran a few days. It is an interesting question why the left ovary alone should have been attacked and the right one remain healthy.

**DOCTOR KNILL**: I would like to inquire why it would not have been more prudent to take out the other ovary at the time of operation.

**DOCTOR LONGYEAR**: The right ovary was perfectly healthy, and I would no more think of taking it out than would an oculist think of taking out both eyes if one eye were diseased through infection with gonorrhea.

**DOCTOR KNILL**: The probability is that the gonorrheal virus is often latent in such cases and might become later a menace to the woman's life.

**DOCTOR LONGYEAR**: The woman has shown no evidence of trouble so far with the right ovary.

## DISCUSSION OF PAPERS.

**Doctor Steinbrecher** read a paper entitled "Treatment of Syphilis."

**Doctor Walker**: I have listened with interest to the paper, and the author has set forth pretty plainly about all we know on the subject. The subject is a large one, and has been revolving in a cycle for four hundred years. It is pretty generally supposed that syphilis is of microbic origin. In regard to the abortive treatment the question arises regarding the utility of excision of the initial lesion, and also at what time to remove it. The problem of excision is a perplexing one, because if we do excise and the patient has no constitutional symptoms afterward the question arises whether. the lesion was a true chancre. There have been a few cases where microscopical examination showed that the excised portion was a chancre, and where the patient had no symptoms of subsequent syphilis. Thorough cauterization would have the same effect as excision. In the treatment of syphilis we know of nothing better than the mercurials, given either internally, by inunction, hypodermically, or by the agency of vapor baths. In regard to the use of hot baths, they are helpful as assisting in the elimination of the mercury. Many patients go to Hot Springs, but in conversation with the doctors who practice at this place we learn that the patients improve because of the hotness of the baths and because of their attention to the rules of living. The patients would be just as much benefited by hot baths at home if they could be as systematically carried out. The most convenient method of administering mercury is the internal. By experiment with each patient we learn what is his individual dose. Some bear half a grain of the protiodide three times a day, while others can endure a whole grain. The dose for each must be ascertained and the treatment kept up for a proper length of time. The intermittent treatment permits of the development of tertiary lesions. In beginning treatment we should wait for inguinal enlargements; of course, the sooner we can make a positive diagnosis the better it is for the patient. The question next arises, how long the treatment should be continued. It certainly should be kept up for at least one year. If the administration of mercury produces weakness and untoward symptoms it should be stopped and a tonic administered. At the end of a year I am accustomed to put patients on the mixed treatment, giving, for example, one-sixteenth of a grain of the biniodide of mercury, ten grains of the iodide of potash, and one drachm of tincture cinchona three times a day. This is kept up for another year. If all symptoms have by this time subsided we can discontinue treatment resuming it as the syphilitic manifestations appear. I would strongly advocate the internal treatment; treatment by inunction involves labor and is dirty. In regard to the use of mercury hypodermically the less said about it the better; it produces quick effects but is irritating and extremely liable to produce abscesses. It is pretty generally condemned by American syphilographers. In regard to the administration of the iodides, they are beneficial in the third stage. I am accustomed to give the iodide of potash in preference to the other iodides, and to give large doses, thirty, sixty, or even ninety grains three times a day. In gummata in the roof of the mouth, which if left alone would go on to destruction of tissue, we can gain time and produce healing by the iodides. The same is true of late eruptions and affections of the nervous system. The question whether individuals tainted with syphilis should marry is a difficult one. A syphilitic is dangerous to himself, to his wife, and to the community. There are, of course, many cases of syphilis which have been undoubtedly cured, many cases where the disease has been transmitted to the wife and yet the children remain healthy.

DOCTOR SAMPSON: I have nothing to offer in criticism of the paper, as I know very little about the treatment of the disease except as I learned of the teachings in my younger days. I have seen only a few sporadic cases. It is high time that we, as a profession, should have a better understanding of the curability of syphilis. We may say that in general few cases are well treated. Every doctor should convince himself either of the curability or incurability of this disease and should prescribe according to his convictions. I am not inclined to believe in the use of mercury hypodermically. In the first body I ever dissected I found half a teaspoonful of metallic quicksilver in the muscles of the neck. The chemistry of the body turns the salts of mercury back into the metal. Treatment by inunctions brings the mercury into the system as liquid quicksilver, and in its passage through the tissues it acts as a germicide, and when it is expelled by means of the hot baths it acts also upon the syphilitic virus in its return to the surface. In the treatment of syphilis it is a question of the selection of the quietest and gentlest way to administer mercury. In regard to the administration of the iodides I am inclined to believe that the iodide of soda is the proper one to select; as it is a more natural salt to the body and contains more iodine. I am sure that this most deadly of diseases is often treated most imperfectly. Two men in my locality who believed themselves cured are lost, one in the grave and the other in the madhouse. The man who treats syphilis without faith in his remedies treats it imperfectly. I am strongly persuaded that syphilis is doing a greater evil in our midst than we realize.

DOCTOR CARSTENS: This morning I received a letter from a former student of mine stating that he had a patient who had syphilis, and asking how I would treat the disease. I would suggest the use of hypodermics of bichloride of mercury, one quarter of a grain every day, or oftener if necessary. There is no question that some cases can be cured only by hypodermics of mercury. In a patient of mine who had womb trouble, and became suddenly crazy, I gave the bichloride in doses of a quarter of a grain every day, hypodermically; the patient now is entirely recovered. When we have to deal with a gumma we need a quick and efficient treatment. The care of the cases depends on the individual, some requiring one remedy and some another. I believe in the mixed treatment, washing out, as it were, the mercury with the iodides, saturating and resaturating the patient four or five times a year. We do not see such bad cases nowadays as we did twenty-five years ago, when, for example, we often saw destruction of the nose. The habits of the patient are an important factor. Drunken loafers are the worst cases which we have to treat. Personally, I do not believe that syphilis is ever cured. Some cases, occurring in German soldiers who have had the disease and married, begetting healthy children and healthy grandchildren, have developed syphilitic symptoms after the lapse of thirty years. I do not believe that it is necessary to wait for secondary lesion before commencing treatment, especially where the initial lesion occurs on the lip. In cases where it is difficult to diagnose between a sore mouth of syphilis and the sore mouth from mercury, we can administer iodine and if the sore is mercurial it will speedily disappear.

**Doctor Robbins**: I do not believe in continuous mercurial treatment. If we wish to know whether there is any mercury present in the system we can examine the urine, and if we do not find mercury we can give the iodide of soda. If there is any mercury present in the system we will find the iodide of mercury in the urine. I have used hypodermics of calomel suspended in oil administered in the gluteal region once a week for three or four weeks.

**Doctor Carrier**: In the treatment of syphilis mention should be made of the importance of differentiating the various stages. I believe a man who has been treated thoroughly through the secondary stage never develops tertiary symptoms. In the first two stages we should use mercury, and it makes little difference how, but having selected one remedy we should use that one because we become accustomed to its use and know how to judge of its effects. I am a believer in continuous treatment as soon as a positive diagnosis is established. I am doubtful about the benefit of the bath in getting rid of the mercury, and whether the drug is effectual by passing through the epidermis. The active virus of syphilis manifests itself in the internal coats of the blood-vessels.

**Doctor Alonzo Bryan**: I would not advocate the continuous use of mercury but would treat the disease symptomatically. I consider that in many cases it is a self-limited disease: take, for example, case occurring among the blacks in the south where they use a little lime, or some decoction of bark, and we see few of the horrors of the disease. For the local treatment of the sore I use iodol or iodoform, if the patient likes the smell. Then I wait for symptoms. In affections of the mouth or eye I give calomel, one-tenth of a grain every hour for one day, and less frequent doses thereafter. This will usually produce the rapid disappearance of an iritis. A little iodide of potash may be given to eliminate the mercury. It is very likely that the system comes to tolerate the continuous use of the drug, and it is well to keep in view the destructive use of mercury and iodine.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, APRIL 2, 1894.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### PATHOLOGICAL SPECIMENS.

**Doctor McGraw** presented a specimen of tubercular knee-joint removed by amputation. The case was one of several years standing. Resection was advised with the understanding that an amputation was to be performed if necessary. Upon opening the joint and cleaning out the tubercular masses therefrom the periosteum of the bones peeled off easily and the ends of the bones were found converted into a gelatinous mass. As the process was so far advanced, amputation was performed. The case was interesting as showing the relation of the periosteum and the bone. While the bone was not dead it was eburnated and in a condition about to undergo ulceration.

**Doctor Carstens** exhibited a uterus removed for multiple fibroids by abdominal hysterectomy by the clamp method. In the specimen could be seen various sizes and various shapes of fibroids, one having an apparently bony formation. The case had undergone, in the hands of other practitioners, the usual routine treatment, and applications of electricity had been made for three months. The case illustrates the futility of electricity in such conditions.

**Doctor Longyear** exhibited a specimen of gallstone removed post-mortem where the specimen had lodged at and produced occlusion of the ileo-cecal valve. When the patient was first seen there was a hard nodule in the abdomen and malignancy of the kidney was suspected. Operation was advised but the family objected. The tumor suddenly disappeared with some manifestations of pain. There was no rise of temperature, although the pulse was 120, but good; the abdomen was flat. There were no special symptoms of collapse. The patient vomitted yellow matter. This symptom continued, but the general condition seemed to improve, and the patient was kept slightly under the influence of anodynes. After the patient had been sick about a week she vomited fecal matter, and shortly afterward died. At the post-mortem, which was made by **Doctor Schell**, a cicatrical mass was found on the under surface of the liver and a large gallstone about the size of a hen's egg was found at the ileo-cecal valve.

**Doctor McGraw**: This case is especially interesting as oftentimes carcinoma of the liver has been mistaken for gallstones and *vice versa*. There is no absolute way to make a differential diagnosis except by exploratory laparotomy. In one case which I had where a woman had a tumor seemingly in the abdominal wall, I hesitated about performing an operation, but cut down and found half a dozen gallstones which had ulcerated through from the gall bladder to the abdominal wall. In another case where the diagnosis lay between gallstones and carcinoma, the gallbladder was found full of gallstones with an involvement of the duodenum and a cicatricial mass. In such cases as these physicians are too pessimistic about operations.

**Doctor Flintermann**: I saw a similar case some years ago where a fistulous opening in the abdominal wall had resulted. A diagnosis of gallstones in many women is attended with difficulties as the liver is often displaced through pressure of the stays. The symptom of icterus is not always present; clay colored stools with bile in the urine is not always a reliable symptom; a previous history of cardialgia is often present. The surgical treatment of gallstone has made great progress in the last few years. I remember a case of **Doctor Tappey** where he operated for gallstone; he found no stone but a thickening of the ductus communis choledochus, and the patient is in good health to-day.

**Doctor Tappey**: I now have my doubts whether there was not a gall-stone after all in the abdomen. There were present a great many adhesions. The operation consisted simply in breaking up some of these; the stone might have been located further down in the abdominal cavity. The operation, however, completely relieved the patient.

## GENERAL DISCUSSION ON "MEDICAL EDUCATION."

**Doctor Douglas**: Those of us who graduated some years back find a striking difference in the matter of medical education between now and thirty years ago. Some of us did not enjoy clinical teaching in any form; many of us had very slight clinical advantages. Clinical instruction has been gradually advancing in importance until it is now a common thing for students to complain of a surfeit of clinical instruction. When I was in college we were not satiated with clinical teaching. No matter how the subject is presented the student will make complaint. I notice that there is a continual movement among faculties making inquiries if they are doing what is the best possible for the student.

Even at the present time there is a movement which shows that we are in a continual state of disquiet seeking after the best possible methods of instruction. The division of practical medicine into the various subjects which is made at the present time causes faculties to think about the best way to present the various particular subdivisions. A clinic is more easy of comprehension and retention in the minds of the auditors than a didactic lecture. I fancy that the advantage of clinics lies only upon the fact that the salient points only are presented, and hence are more easily absorbed. To impress the salient points it is necessary that they be driven home by clinical instruction. It is only in very large cities that the clinical material is sufficient for the presentation of all subjects. There are many subjects that can be presented satisfactorily in about six or seven cities alone in the entire world. I doubt if it would be possible to teach in the majority of colleges, even in our larger colleges, by clinics alone. It seems hardly possible to take students in the beginning of their medical education and instruct them satisfactorily by commencing upon the patient at the start. It seems to me that the experience of the world, with its gradual changes and slow conclusions, is better than any new way suddenly introduced. It is a matter of history that important changes with regard to most subjects have been made gradually; the change brought about by one individual has in most instances been infinitesimal.

Doctor Skinner: What I have to say upon medical education will be simply the presentation of a few ideas offhand. A medical education, like the building, requires a good foundation; a good general education being requisite first of all in individuals capable of being educated. The present system is defective in requiring so low a standard of admission into medical colleges. While I would not require a diploma of a literary college I would consider a knowledge of Latin important. Advanced mathematics and Greek are not so important. A certain amount of knowledge of the physical sciences is all-important. Botany and zoölogy are deserving of more importance than they now receive. Every college should be provided with an aquarium, herbarium, et cetera. A professor of materia medica, when lecturing upon drugs and their properties, should exhibit the different preparations to the students as the professor of practice exhibits patients afflicted with various diseases to the members of his clinic. There are some things not strictly medical which a doctor should understand, as, for instance, sanitary science. His attainments should include politeness and refinement. He should have a knowledge of nursing and cooking. When called to a family he should inspect the whole house, he should examine the condition of the soil, and have a knowledge of all the sanitary or unsanitary surroundings; in other words, he should try to prevent disease. In the country among the farmers sickness arises from improperly located outhouses and the infrequency of the cleaning of wells; health is thus injured in ways which could easily be prevented. The young doctor should be quizzed in regard to nursing and cooking delicate dishes for the sick. The doctor, when he goes into poor homes, should investigate the methods of cooking of the family. Medical students should be taught to cook that they may be able to give proper instructions to their patients in this matter.

Doctor Longyear: I wish to speak in admiration of the ideas presented by Doctor Skinner, particularly that a physician should be a good all-round man, and especially a sanitarian. In this city most of the older houses are poorly drained, and many physicians have come and gone, and their patients have also *gone*. One house in particular where there had been much sickness was found on investigation to have water standing about on the furnished floor; there were no traps for the soil-pipes so that the whole house was simply a ventilating shaft for the sewer.

DOCTOR McGRAW: The subject under discussion is a very large one to be taken up in one evening. I think that object lessons cannot be used alone in the teaching of medicine. The idea that a student can learn medicine simply through practical training is not a correct one. Medical education does not stop with facts; the medical student must learn principles. He must possess not only the facts and technique of his art, but he must also have the ability to reason which comes from study and thought under the guidance of a teacher. While in the past there was too little clinical instruction it would be a great mistake to now go to the other extreme.

DOCTOR CARROW: Like DOCTOR McGRAW I find myself embarrassed by the largeness of the subject. I was much struck by the remark of DOCTOR DOUGLAS that so few cities of the world offer facilities for proper clinical instruction in all subjects. A preliminary education is an absolute necessity for a medical student, but I think that DOCTOR SKINNER demands that we know too much. I fancy if I should be called to a family and should suspect that the sanitary condition of the house was at fault I would prescribe a practical plumber in much the same way as I would prescribe a dose of squills. What the doctor said in regard to training a student I quite agree with.

DOCTOR CARSTENS: The ground has been pretty well covered so far this evening upon this subject. I have some doubt about the utility of Latin. I regard Latin as now studied as largely a waste of time. An education which develops the logical and reasoning faculties of the student is the most advantageous for him. I think a young man should learn some mechanical art so that his hand may be educated. In regard to medical education laboratories are as essential as clinics. The subject of clinics resolves itself into the education and enthusiasm of the teacher. The main thing for the student to learn is to make a correct diagnosis; treatment is largely a matter of routine and can easily be read up. Hence the matter of education in the ability to diagnose is very important.

DOCTOR LENNOX: The experience of a physician convinces him that the first essential for a medical man is a mind properly trained. In additien to theoretical knowledge clinical instruction is, of course, necessary. However, a man who has been in practice five years appreciates clinics better than a medical student. While it is all right and proper for us to discuss this in theory we should make an effort to bring about medical legislation to raise the standard of medical education.

DOCTOR FLINTERMANN: Looking back upon my own experience, I found myself after I had passed my examinations unsafe to practice medicine. I had not acquired the ability to put in practice what little I had learned. France, Belgium, and some other of the European countries now require a medical student to spend six years in study before graduation. A knowledge of Greek and of Latin is a necessity for the proper understanding of many of the essential subjects of medicine; the study of any foreign language trains the mind and develops the logical faculties. While six years may seem to be a long time to devote to the study of medicine, still, if you take into consideration what the medical student has to learn, it seems hardly long enough. I consider three or four years too short time for the education of a practical physician. In America, as well as in Europe, the young man leaves college with but little practical training. I had the good fortune to have as a teacher a professor who conducted his clinic in a way which was most advantageous for the student, and which I have never seen surpassed in any college home or abroad. When the student entered the clinic he was assigned a case, made an independent examination, and brought in a diagnosis; the next day this was criticized and corrected. The student took charge of the treatment. If the case recovered he was obliged to write up a complete history; if the case died he made the post-mortem himself and was required to explain the pathological lesions. I have never seen since this work so fully carried out. A man should be a general practitioner for ten years before he makes up his mind to be a specialist. Students are too apt to regard the practice of medicine in a routine way; they are also too apt to regard operations as a matter of routine. The ability to make a correct diagnosis is the most important feature of a medical education, and the most difficult to acquire. The ability to make a proper prognosis is a most important one, involving as it often does the prosperity of a family.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, APRIL 16, 1894.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### DISCUSSION OF PAPERS.

**Doctor Sherman** read a paper on "The Eradication of Contagious Diseases."

**Doctor Miner**: I have listened with interest to the paper and have found it very instructive. The main point raised in the doctor's argument, that proper compensation should be provided for families where the wage-earners are prevented from pursuing their usual avocations, is a very just one. It is a matter to which I have given considerable thought at different times, and it has always seemed to me that to take a man away from his work, and thus prevent him from earning his usual wages, is a great hardship. In the case of wealthy families there would be no need of compensation, and if proffered it would generally be declined. Each case should be thoroughly investigated and if the family are not in good circumstances just compensation should be awarded. The isolation in certain cases should be much more strict than in others. I do not think that, ordinarily, it is possible for one person to convey diphtheria to others where there is an abundance of fresh air. Most of the cases which I have seen have been contracted by inhaling directly the breath of the sick one. If the disease is communicated by other than immediate contact there generally exists some diseased condition of the mucous membranes or lowered condition of vitality. In scarlet fever the case is entirely different as the epidermic scales are easily conveyed and can carry the disease far and wide. Therefore, in scarlet fever, the isolation should be very close and those prevented from work should be properly compensated. If all cases were to be well paid there would be need of great care to prevent fraud. Persons are now frequently met making strenuous efforts to secure sick benefits from lodges of which they are members. I have great sympathy for those families afflicted with contagious diseases where the family keep a store or bakery. In such cases it is better to insist on the removal of the patient to a contagious hospital. Especially is this so in cases of scarlet fever. I think epidemics are largely spread through the agency of schools and stores.

DOCTOR ALONZO BRYAN: I approve of the plan set forth by DOCTOR SHERMAN. I think that it would be a grievance to attempt to distinguish between the poor and the wealthy.

DOCTOR HOYT: I consider the paper presented this evening a very important and interesting one. Howewer, I do not believe that the mere reporting of cases under the present system of isolation would prevent the further spread of the disease. The present scheme of isolation and disinfection is almost useless. I would suggest also that the doctor be paid for each contagious disease which he may report to the Health Office. It is a well known fact that some doctors fail to report cases through fear of losing the family. This would be changed if physicians were to be paid for the cases reported. My opinion is that cases reported should be under the supervision of medical men. These medical officers should be empowered to enforce more stringent laws than exist at present. Trained nurses should also be provided so that proper disinfection of the sputa and excreta could be efficiently carried out. My experience is that people are more willing now than formerly to have their houses placarded and to carry out the regulations of the health department. According to our present system of supervision the supposedly isolated family is not under any restriction so that they need not, unless they choose, carry out the regulations.

DOCTOR CARTENS: You can never convince me that you can prevent the spread of contagious diseases by the method of isolating a house. There are so many ways that contagion can be carried that our methods of isolation are useless. Contagion is often carried by domestic animals, the pet dog or cat. Women visiting another's house, while they may escape themselves, still may carry the contagion to their own or others' children. The only effectual way is to remove every case to a contagious hospital where every means for proper disinfection is provided. This is the only way by which the spread of contagious diseases can be prevented unless in the advance of science some method of conferring immunity similar to vaccination is discovered.

DOCTOR KNILL: I think some one should, in behalf of the mothers, protest against the remarks of the last speaker. The thought of the paper is right and I hope that it will be adopted. In my opinion diphtheria is conveyed largely by the sputa from a case being deposited on clothing.

DOCTOR ANDERSON: One question which has not been touched upon, and one which is very important, is that of correct diagnosis. Formerly all cases of inflammation of the tonsils attended with membrane were called diphtheria. Such affections of the throat are now divided into classes, those caused by the KLEBS-LOEFFLER bacillus and those caused by the streptococcus or by the staphylococcus. In New York City cases of throat trouble where diphtheria is suspected are diagnosed by laboratory methods and arrangements are made so that these are within the reach of all the physicians. This work should be done in all cities, and when cases of true diphtheria are found the strictest methods of isolation and disinfection should be employed.

**Doctor Harvey**: I am highly in favor of doing everything possible to eradicate contagious diseases. Families if isolated should be recompensed for their loss. I do not favor the paying of doctors for reporting cases. The people are educated to the seriousness of small-pox and readily adopt measures to prevent its spread; in like manner they will become educated to regulations for the suppression of diphtheria and scarlet fever.

**Doctor Schell**: I would like to inquire what would prevent the spread of these diseases by intercourse between individuals of different towns. The head of a family living in an adjoining town might carry the disease to his companions at work in another place.

**Doctor Hoyt**: The township boards have far more authority in these matters than the city boards.

**Doctor O. C. Brown**: Fifteen years ago I saw a great deal of small-pox in Canada, and my experience there was that the contagious hospital was a failure and availed little or nothing. The only measures which were effectual in stopping the spread of the disease was a strict method of isolation.

**Doctor Brandt**: It is a nice thing to talk about new laws but the trouble would be to enforce them. We have good laws now but they are not enforced. It is my experience that the inspector does not see the family more than once a week. I reported a case on Twentieth street and the house was duly placarded. It was four days before the inspector came around to see what were the wants of the family. I telephoned the Health Officer about the delay and he promised to have the matter attended to promptly. It was another four days before the inspector visited the house again. Fumigation as practiced at present is a perfect farce. The officer comes around, lights the sulphur candle, and goes away, leaving the family to throw the candle out in the yard if they so desire.

**Doctor Flintermann**: The duty of the physician at present lies simply in reporting cases, and where he does that he is often discharged. On the other hand many tricks are often played by the doctor to evade the law and thus retain his hold on the family. A short time ago I was called in consultation to see a case which was diagnosed by the attending physician and myself as scarlet fever. A few days afterward I was surprised on passing the house of the patient to see a diphtheria card on the door. After a little investigation I learned that the head of the family kept store and that the attending physician, in order to shorten the time of placarding, had reported the case as one of diphtheria. The inspectors are not medical men but should be. There should also be a law by which a physician would have the authority to enforce the proper isolation of cases. Intelligent people readily obey the rules and regulations of the health department; the ignorant should be made to obey, under stringent penalties, the most strict regulations. There should also be provided a public disinfection station, conveniently located, where the clothing, et cetera, of a family which has been afflicted with a contagious disease could be efficiently disinfected. 'In Springwells, I am happy to state, the regulations of the health officer are so strictly enforced that, for example, puerperal fever is a rare thing. In this city I knew of twelve women who were infected by one midwife. Every case of birth should be reported, not merely for the sake of the statistics, but to act as check on the mortality.

DOCTOR SHERMAN: The first move toward the isolation of a case is to find it. Many families never call a physician if they think that they have a member of their household sick with a contagious disease and that the attack will prove a light one. Such unreported and non-isolated cases are very prolific in spreading the disease. Our present law is lame in that reporting cases often involves pecuniary loss. The average mother objects very decidedly to allowing her child to be taken to a hospital, or pesthouse, as they call it. Physicians should be employed as inspectors. If a man whose house is isolated is paid a proper sum, say $25 a week, the neighbors will help to enforce the law as it will be to their own interests so to do, and because the money really comes out of their own pockets. Simple justice demands that if a man is thrown out of employment in order that the public welfare be promoted he should be recompensed from the public treasury. If a man is thus amply paid for the loss of his time and then does not obey the law he should be heavily fined. There are one hundred and twenty-six cases of small-pox in Chicago to-day because strict isolation was not insisted on in the first instance. I would move, Mister Chairman, that a committee be appointed to draft appropriate resolutions for the prevention of contagious diseases to be submitted to the legislature at its next session. Supported. Carried. The chair announced that he would present the names of the committee at the next meeting.

P. M. HICKEY, M. D., Secretary.

## CORRESPONDENCE.

### BERLIN LETTER.

BY COLLINS H. JOHNSTON, A. M., M. D., GRAND RAPIDS, MICHIGAN.

SIXTH PAPER.

### ANOTHER COURSE IN GYNECOLOGY.

THE winter semester in the University of Berlin ends officially March 15. Practically, however, the work of the term closes April 30, and as many of the leading medical men are professors or privat docents in the University, March is selected as the month in which to hold the spring or "vacation" courses for physicians. The best gynecological courses are those of MARTIN, LANDAU, VLIT, and WINTER, and having previously had work with the first three men, I took WINTER's course in March, and found it in many respects the best of all. WINTER was elected extraordinary (or assistant) professor in the University last December, along with MARTIN and VLIT, and while much inferior to MARTIN as an operator, is the best teacher I have yet seen. Being first assistant to OLSHAUSEN, the ordinary professor of gynecology and obstetrics in the University, and director of the Royal University Frauenklinik, he has access to an immense polyclinic material; and as OLSHAUSEN is quite advanced in years WINTER practically runs the clinic and performs many operations. His students also have access to OLSHAUSEN's operations. The hospital has two hundred beds, thirty of which are for babies, one hundred and twenty-five for obstetrical, and forty-five for gynecological, cases. They had twelve hundred cases of labor in the hospital last year, and twenty-four hundred in the out-door department, most of the latter being pathological. **Olshausen** has made eighteen Caesarean sections, with one death, and **Winter** has made two. When symphysiotomy was revived, a couple of years ago, **Olshausen** performed it twice. One of the patients died. He does not consider it a good operation.

**Olshausen** and **Winter** are the most conservative gynecologists I have seen. But perhaps "conservatism" is not the best word to use in this connection, for "conservatism" as often applied is only a cloak for ignorance. Good surgery is *always* conservative and the most radical operation is often more conservative of a patient's health than any other form of treatment. What I wish to say, however, is that their indications for many operations differ much from those of **Martin**, and that they rely much more than he does upon palliative treatment. Of the twelve thousand patients treated by them last year, only two hundred and eighteen were subjected to laparotomy, and of the hundreds of cases of diseased appendages, among which were a large number of pus tubes, but fourteen were operated upon.

## MISTAKES IN DIAGNOSIS.

The impression is quite prevalent in America, I think, that German gynecology is almost entirely operative, but any one following the work of **Leopold**, **Parvlik**, **Olshausen**, or **Winter** for a short time, will soon realize that such is not the case. Owing to **Martin**'s wonderful surgical skill he can, perhaps, safely follow ideal methods of treatment in endeavoring to cure his patients which in the hands of many other men might lead to disaster. The ideal manner of treating a gynecological or obstetrical case is not always the safest, and that procedure should generally be adopted which has stood the test of time and received the approval of a goodly number of our best men. This seems to be the practice of many of Germany's leading gynecologists. I am afraid, however, that the dictum of some great man is occasionally followed here, as well as in America, by those less skillful without previously trying milder means to effect a cure. For instance, excessive loss of blood by a woman after the age of forty years is not uncommon. Among the causes of this we often find a small interstitial myoma not recognizable on bimanual examination, carcinoma, malignant adenoma of the endometrium, or simple hypertrophic or hyperplastic endometritis. I have seen many such cases in which malignant disease was excluded by the microscope, and which were not relieved by repeated curetting, or even by castration. Vaginal hysterectomy was, therefore, necessarily performed. This having so often been the case, and the mortality of hysterectomy being so low, it is too hastily concluded by some that it is the best treatment for all such cases. Last week I saw the first assistant of one of Germany's best men remove per vaginam the uterus of a woman forty years of age, who had suffered long from hemorrhage, and had been curetted once or twice. He remarked that vaginal hysterectomy was the surest cure for such a condition, whatever the cause, and, after confirming the diagnosis of chronic endometritis, operated. Examination of the uterus disclosed a small submucous polypus which could easily have been removed through the cervix if the proper diagonis had been made by dilating the cervical canal, as **Leopold** always does in such cases, and introducing the finger into the uterus. The next day the professor himself diagnosed a case with similar symptoms as myoma, and removed the uterus. He found only chronic metritis and hypertrophic endometritis. A question brought out the fact that no curettement had previously been tried. Hardly a week passes, however, when I do not see one or more mistakes in diagnosis or treatment, and one learns to become very charitable in passing judgment even upon these great men. As long as men are endowed with different minds they will continue to hold different views, and it will probably be long before there is unanimity of opinion upon many questions, such as whether a pelvic abscess should be operated upon through the vagina or the abdomen; whether castration should be made for myoma; or whether extrauterine pregnancy should be treated by electricity or a surgical operation.

## SURGICAL ACCIDENTS.

Speaking of mistakes leads me to mention a couple of *accidents* which have occurred here lately. A few weeks ago **Martin** removed an ovarian tumor from a wealthy patient who was sent him from a distance. A few minutes after the patient was taken to her room an assistant came in and said her pulse had suddenly become rapid and weak, and the patient looked bad. She was immediately brought back to the operating room, and the abdomen reopened, when it was found that one of the ligatures on the pedicle had slipped, giving rise to hemorrhage. The bleeding vessels were again tied, and the blood removed from the pelvic cavity, but before the abdominal wound was sutured the patient died. **Martin** showed most wonderful self-possession, and did not say a word, but ordered the next patient to be brought in. The second accident occurred in **Olshausen's** practice. He had almost completed an abdominal hysterectomy for myoma upon a greatly exsanguinated patient, when the anesthetizer said he could no longer feel the patient's pulse. Hypodermics of camphor were given and artificial respiration kept up until a stethoscope was procured when it was found the heart had stopped beating. **Olshausen** looked very much disturbed, and remarked that it had a very depressing effect upon a surgeon when a patient died upon the operating table. He did not know whether death was due to the ether used for anesthesia, or to the additional blood lost during the operation, which was quite small in amount.

## VAGINAL HYSTERECTOMY.

One of the most common operations at this clinic is vaginal hysterectomy for cancer. Supravaginal amputation which was introduced into practice by **Schroeder**, the predecessor of **Olshausen**, is seldom performed. **Schroeder** made one hundred and forty high amputations of the cervix, but was becoming quite pleased with the results of total extirpation and had made it one hundred times, when he died about eight years ago. **Olshausen** and **Winter** have performed supravaginal amputation twenty times, and think it is admissible in the very early stages of cancer of the portio, which rarely, if ever, extends to the body of the uterus, and which does not usually invade the cervical canal until late in the disease. **Olshausen** has made three hundred total vaginal extirpations, and **Winter** one hundred, with a mortality of eight per cent. The best results were obtained by the late **Professor Kaltenbach**, of Halle, who operated one hundred times, with but two deaths. **Winter** thinks that a permanent result after this operation cannot be spoken of until five years have elapsed, and of the patients operated upon at this clinic twenty-five per cent. have been found healthy at the end of this period.

When the International Medical Congress met in Berlin, four years ago **Olshausen** made two vaginal hysterectomies for cancer in the presence of **Lawson Tait**, who still insists that the operation is useless when carcinoma is present in any part of the uterus. Although the cases were unquestionably carcinomatous, as shown by both gross and microscopic appearances, **Tait** stoutly maintained the diagnosis was incorrect. **Olshausen** thinks one reason why the operation is not more popular in England is that the cases are not operated upon early enough, and the results are accordingly unsatisfactory. English women are not accustomed to permit gynecological examinations as readily as German women. An interesting fact in this connection is that while ten years ago only twenty per cent. of the cases of cancer of the uterus presenting themselves at this clinic were operable, to-day, owing to both patients and physicians realizing the necessity of earlier examinations, fifty per cent. of the cases are found suitable for operation. I believe the day will come, and the sooner the better for womankind, when every woman past the age of thirty-five or perhaps forty years will present herself at least once a year to a physician for examination of her pelvic organs. Such a suggestion may seem strange at present, but can cause no more surprise than is often manifested by a German when he is told that many thousands of American women present themselves every six or twelve months to a dentist for an examination of their teeth.

**Olshausen**'s method of making vaginal hysterectomy is the same as that employed by **Leopold** and many others, and is much easier than **Martin**'s. An aneurism needle threaded with catgut is used for tying off the broad ligaments, and the tubes and ovaries are not disturbed unless diseased. When the uterus is removed the peritoneal cavity and cellular tissue are completely closed by carefully suturing the peritoneal mucous surfaces at the vaginal vault. He thinks the greatest objection to the clamp operation is the impossibility of guarding effectually against infection by thus closing up the connective tissue of the pelvic floor. When cases have progressed too far for radical operation he thinks it is best to do nothing until relief is sought for the discharge or hemorrhage. The best treatment then is thorough curetting and cauterizing with a **Paquelin**, followed by packing for a few days with iodoform gauze. Tincture of iodine locally, twice a week, is also a good palliative remedy, and seems to have a restraining influence upon the growth of the cancer, the discharge, and the hemorrhage. The curetting and cauterizing can be repeated every three or four months, but great care should be taken that the rectum or bladder is not perforated. Patients often take on flesh after this little operation, and again enjoy life, which is thus prolonged many months.

## EXTRAUTERINE PREGNANCY.

During my five weeks with **Winter** I saw a considerable number of cases of extrauterine pregnancy. Only one, a case of acute rupture with escape of a large amount of blood into the pelvic cavity, was operated upon. These cases are treated somewhat expectantly as a rule. If a case of extrauterine pregnancy is observed in the *first* half of pregnancy, and the fetus is *alive*, a laparotomy is made and the ovum with its contents is removed, as rupture and fatal hemorrhage may occur at any time. The use of electricity for destroying the life of the fetus, arresting the growth of the ovum, and thereby diminishing the danger of rupture and hemorrhage, is not recommended, although warmly commended by some of the best authorities in the United States. Opportunity for a diagnosis at this time, however, is not usually afforded, as a physician is not often called in such cases until rupture has occurred and the fetus is dead. This usually takes place in the first or second month. Under these circumstances no operation is performed unless necessitated by the continuation or repetition of the hemorrhage, for considerable amounts of blood and a fetus of the early months of pregnancy are usually absorbed without difficulty. But all cases in the *second* half of pregnancy, whether the fetus is *alive* or *dead*, are treated surgically, for a fetus of that age is not readily disposed of by nature.

### METHOD OF DEALING WITH PYOSALPINX.

Pus tubes are also treated expectantly. **Winter** does not think it is right to operate on these cases until a prolonged course of local treatment has been used to promote absorption of the inflammatory products, and until the symptoms are such as to demand operative relief. The immediate results of laparotomy for pus tubes is, in general, good. **Zweifel**, of Leipsic, has operated one hundred and thirty-four times with only one death. The permanent results are, however, not so favorable. Hardly fifty per cent. of the cases operated on at **Olshausen's** clinic are relieved of the symptoms calling for the operation; ten to fifteen per cent. are only partially relieved; the remainder receive no benefit at all from the operation, or are worse after it than before. The danger of operating on acute pus tubes is especially great as the bacteria are then young and virulent. In old eases the germs are often dead, and their infectious powers destroyed. This is much more apt to be the case in pus tubes following gonorrhea, which contain usually only gonococci, than in post-puerperal cases which contain streptococci or staphylococci, which retain their virulence for a much longer period. For this reason operations on acute pyosalpinx should be delayed as long as possible. The patient should be put to bed, and everything possible be done to relieve the acute symptoms, and promote resolution. Not unfrequently such a patient is restored to perfect health, and the normal configuration of the tubes reached even after enlargements of considerable size. Whether the lumen of the tube is always restored, only a laparotomy could tell. That the tubes can be completely restored to health after acute bilateral pyosalpinx is, however, well known, and proven by the occurrence of normal pregnancy afterwards. In how far chronic pus tubes can heal it is difficult to say. Complete restitution to a normal condition is, of course, impossible after destruction of portions of mucous membrane, obliteration of the lumen at various points, and formation of one or more retention cavities filled with pus. But such cases by no means always demand an operation. The pus may undergo cheesy degeneration and absorption, or become calcified, the same as occasionally takes place after appendicitis, and the patient may become symptomatically well.

### RETENTION CYSTS AND NEW GROWTHS.

Before deciding what course to persue with an ovarian cyst **Winter** always tries to determine whether it is a simple retention cyst or a new growth. Retention cysts arise from Graafian follicles, corpora lutea, or remains of the parovarian canals occasionally found in the ovary. These cysts WINTER does not consider pathological. They are not epithelial new growths as are true cystadenomas, but usually dilated follicles, due to transudation of serum. In the normal development of a Graafian follicle, as its fluid contents increase in amount, and it approaches the surface of the ovary, the blood-vessels over it are pressed upon, necrosis takes place, the follicle ruptures, and the ovum escapes. If from any cause the ovary is unusually well nourished, or the blood-vessels enlarged, they may not be injured by the pressure, rupture may not occur, and a cyst is developed. Thus arises the so-called cystic degeneration of the ovary, which is often only an exaggeration of a physiological process. Nor does WINTER consider the much talked of microcystic ovary of pathological significance any more than a congenitally large or a congenitally small ovary is. It is not an oöphoritis, for we speak of inflammation only when there is an exudation of white blood corpuscles, but a hypertrophy due to the simultaneous or premature ripening of a large number of Graafian follicles. There is no multiplication of blood-vessels present, but more cells than usual, filled with an excess of liquor folliculi. Retention cysts often cause no symptoms whatever, and are only accidentally discovered. When such is the case WINTER advises against an operation. If, however, the tumor is causing pressure symptoms, which is usually the case when it reaches the size of a child's head; or if inflammation has taken place, which often comes from torsion of the pedicle, and which leads to adhesions with the neighboring organs, he advises removal. When, however, an ovarian tumor is thought to be a dermoid, glandular, or papillary cyst, he operates immediately whatever its size. Dermoid cysts are benign growths, but frequently cause pain out of all proportion to their size, and tend to become adherent with the rectum, uterus, et cetera; and glandular and papillary cysts often degenerate and become carcinomatous, the latter especially. All solid tumors are also removed as soon as possible.

WINTER's treatment of uterine myomas or fibroids is equally conservative. While MARTIN and some other gynecologists advise an operation almost as soon as a diagnosis is made, WINTER maintains that no myoma should be removed until symptoms demand it, and then only after symptomatic treatment has proven useless. Myomas are quite common, and often require no treatment at all, but they should be carefully observed, and when growing rapidly or causing symptoms, should be treated. When the tumor grows slowly and causes pressure symptoms or hemorrhage he recommends HILDEBRANDT's ergot injections. WINCKEL, of Munich, has given one patient fifteen hundred ergotine injections with beneficial results. Electricity is not much used for myomas in Germany. Ergot is considered better and is more easily employed. When hemorrhage is the only symptom requiring treatment, WINTER often advises the cautious employment of curettement. This, however, is sometimes impossible as the uterine canal may be very tortuous. Great care must be taken that the patient be not infected, and that the uterine wall, which in some places may be very thin, be not perforated. The danger of infection from curetting in myoma is especially great, for removal of the mucous membrane over the tumor may be followed by gangrene, and if infection is present, suppuration may occur and death result. HEGAR's operation of castration is used in suitable cases. It is often difficult to find the ovaries, and pieces are quite apt to be left behind. In three-fourths of the cases so operated at this clinic the hemorrhage has entirely disappeared. Without this no diminution in the size of the tumor can be expected. This procedure is intended especially for interstitial myomas, but may be resorted to in subserous tumors, and submucous which are not pedunculated. But experience has shown that castration is almost useless in myomas reaching above the navel. For all such the only operation is abdominal extirpation, and the method of **Schroeder** is generally employed, that of supravaginal amputation of the uterus with intraperitoneal treatment of the stump. **Martin**'s total extirpation, which is much more difficult, and which does not really seem to offer any advantage over the supravaginal method excepting in malignant tumors and in myomas so situated that they cannot be entirely removed by the latter operation, is seldom employed. The intraperitoneal treatment of the stump has entirely superceded the extraperitoneal method in Germany. Ideal asepsis has not been reached in gynecological surgery, although we are much nearer to it than before the introduction of sterilizing processes which are accurately controlled by bacteriological examinations. It is probable that a small number of pathological bacteria are present in every laparotomy. If the peritoneal cavity is dry, they do little if any harm. But if it contains blood and other fluid suitable for the growth of bacteria, peritonitis may be quickly set up, or the patient may die from ptomaine poisoning before peritonitis has had time to develop. It is thought that many patients who die after such operations from " shock " or " paralysis of the heart" in reality die from the most acute form of septic infection. In this way is explained the fact that the same antisepsis which for many years produced good results in ovariotomy was followed by bad results in supravaginal hysterectomy with intraabdominal treatment of the stump, from which there is so apt to be more or less secondary oozing into the peritoneal cavity. Thus it was that for a long time most operators preferred the extraperitoneal treatment, which allowed the dangerous secretions to escape outside of the abdomen. But improvements in the technique of the intraabdominal operation are such that it is the one adopted by most Germans, and the old operation, which is still employed by **Pean**, **Bantock**, et cetera, is seldom used. All over Germany gynecologists are striving to produce the best method of securing a dry stump, and **Leopold**, **Zweifel**, **Sänger**, **Fritsch**, **Chroback**, et cetera, each have their own method of accomplishing it. **Zweifel** has now made fifty-two supravaginal hysterectomies, with intraabdominal treatment of the stump, with but two deaths.

## THE CLASSIFICATION OF ENDOMETRITIS.

**Winter** divides endometritis clinically into catarrhal, hemorrhagic, and dysmenorrheal. When a woman with a vaginal discharge presents herself, he first tries to locate the seat of the disease. A certain amount of secretion is normal to a vagina. The vagina itself has no glands of any kind, but furnishes macerated epithelial cells which, mixed with serous fluid from the cervix, makes the milky secretion of a healthy vagina. A mucous or slimy discharge always comes from the cervix, never from the glands of the corpus, the secretion of the latter being serous or watery, or purulent. When it is difficult to determine the exact source of a vaginal discharge, **Schultze**'s tampon is a valuable aid. The vagina must be thoroughly dry, the tampon large enough to fill it, and it may be left in situ twenty-four hours. If then only pure mucus is found on that part of the tampon which was next the internal os, the disease is cervical; if pus is found there, the corpus is involved; and if pus is found elsewhere about the tampon the vagina is the seat of purulent colpitis. Catarrhal endometritis is treated by intrauterine irrigations, at first every two or three days, finally daily. As it is an infectious disease antiseptic fluids are used, the favorite being a three per cent. carbolic acid solution, or 1–2000 or 1–5000 bichloride solution. The irrigation is continued at each sitting until all secretion is removed. If the case is a gonorrheal one, ten or fifteen applications of a ten to twenty-five per cent. solution of chloride of zinc may be made with a cotton wrapped applicator at intervals of four or five days. If this treatment does not cure, and a purulent discharge still comes from the uterus, he packs the uterus with iodoform gauze once every three or four days, removing the packing in twenty-four hours. He does not curette in chronic endometritis which is unattended with hemorrhage. In chronic cervical catarrh, the secretion is removed with cotton, and a twenty-five per cent. solution of zinc chloride applied to the cervical canal. This may be repeated from five to twenty times at intervals of five or six days. Or pencils of zinc sulphate and alum, fifteen grains of each, are inserted into the cervix at intervals of six or eight days. If any so-called nabothian glands are present, they are punctured with the actual cautery. In hemorrhagic endometritis the treatment is begun with thorough curetting, providing no contraindication is present, such as acute gonorrheal vaginitis, tubal disease, parametritis, et cetera. Beginning four or five days after the curetting applications of tincture of iodine or zinc chloride are made for three or four weeks. The latter is the favorite drug, and is used in a ten per cent. solution which is injected into the uterus with a **Braun's** syringe at intervals of five days. Great care must be taken that none of the fluid is allowed to remain in the uterus. In young women, iodine is preferred, and in old women a twenty-five per cent. zinc solution may be used. The treatment of membranous dysmenorrhea consists of curetting followed by zinc chloride applied with an applicator. The solution is not injected into the uterus in these cases, as they have a peculiar tendency to colic. Vaginal injections are considered useless in uterine catarrh, but are valuable in vaginal catarrh. For a non-specific colpitis alum is used, one drachm to the quart, once or twice a day. In severe cases, especially in elderly women, a five or ten per cent. solution of nitrate of silver is poured into the vagina through a cylindrical speculum, and allowed to remain until the surface turns white. It may be repeated every three to five days.'

## GONORRHEA IN WOMEN.

Acute gonorrhea in women is treated very cautiously. For the first eight to fifteen days the patient is kept in bed, oil of sandal-wood is given for the urethritis, and vaginal injections and applications of all kinds are carefully avoided for fear of driving the pus into the uterus and causing endometritis, salpingitis, perimetritis, et cetera. When the acute inflammation has abated the vagina is washed daily, or every other day, with 1–1000 bichloride, and packed with iodoform gauze. If the cervical canal is affected, applications of zinc chloride, or zinc and alum pencils, are made.

## A COURSE IN MICROSCOPICAL PATHOLOGY.

One of the other courses which I had the pleasure of taking in Berlin during March was that of **Carl Ruge**, in microscopical pathology of the female genital organs. Ruge is the highest authority in Germany in this department of medical science. He has had more than one dispute with Virchow in the past few years, and has invariably proven the correctness of his views. His course is called the best of the kind in the world. It is certainly incomparably superior to anything else I had been able to find on the same subject. He, together with his assistant, Gebhardt, has in preparation a book and an atlas devoted to the microscopical pathology of the female organs which will be the only ones of their kind in existence. At least none such have yet been published in any language.

Berlin, Germany, May 15, 1894.

# EDITORIAL ARTICLES.

## THE AMERICAN MEDICAL ASSOCIATION.

The forty-fifth annual meeting of this organization occurred in San Francisco on June 5–8 inclusive. Owing, undoubtedly, to the condition of depression which prevails throughout the country, the attendance was greatly reduced, the registration list indicating the presence of five hundred members on the first day, and only six hundred, accompanied by about four hundred ladies, on the third day. The president, Doctor James F. Hibberd, prefaced the deliberations by an address replete with wise counsel for the welfare of the association, and it was appropriately referred for consideration to a committee of five.

The two most important questions to be considered at this meeting were the revision of the constitution and the code of ethics. After indulging in prolonged and animated discussion it was decided to indefinitely postpone revision of the former, and to publish regularly in *The Journal of the American Medical Association* a statement defining the proposed changes in the latter, that the question may be acted upon understandingly at the next meeting.

The association expressed disapproval of the threatened reduction of the membership of the army medical department, and communicated its sentiment to Congress; recommended the appointment of state examining boards; endorsed the present management of the publication conducted by the association; and advocated the appointment of a national sanitary officer, in the event that a department of health, to be presided over by a cabinet officer, cannot be obtained.

From a scientific point of view the meeting was unusually successful, and the social features were particularly enjoyable. The next meeting will be held in Baltimore the first Tuesday in May.

## VACCINATION AND SMALL-POX.

The immunizing value of vaccination in small-pox as a scientific fact needs no iteration in professional circles. Frequently, however, among the ignorant, and occasionally among the pseudo-learned, difficulty is encountered by our sanitary authorities in enforcing protective vaccination when epidemics of small-pox are threatened. Legal rulings recently given indicate that our health authorities cannot enforce under penalties, compulsory vaccination, but it is to be hoped the public will not need the unwholesome object lesson of an epidemic in order to be convinced that danger is to be apprehended.

The statistics of vaccination can always be quoted with convincing effect. In 1887, in Austria-Hungary, where vaccination is optional, the death-rate from small-pox was 583.7 per million inhabitants. In the German empire, where vaccination is compulsory, the death-rate was, during the same year, 1.8 per million. Later statistics are even stronger in favor of vaccination.

It is well, also, in view of the manifest danger, to remind the public that an attack of small-pox does not necessarily protect from recurrence of the disease, and the average immunity conferred by vaccination does not outlast five years.

The state and local boards have provided liberal opportunities for all to avail themselves of the protection afforded by one of the most beneficient discoveries of man.

## EDITORIAL BREVITIES.

### DANTE AN EPILEPTIC.

In an article in *The Nouvelle Revue*, some time ago, M. Durand–Fardel produced evidence in support of the belief that Dante was an epileptic. Professor Lombroso has recently made a *catena* of passages from the writings of the author of the "Divine Comedy" in support of this thesis. In the "Purgatorio" the condition described seems to be of the nature of dreams or somnambulism; in the "Paradiso" that of religious ecstacy. Lombroso is unable to decide from these whether Dante were epileptic or hysteric, but is inclined to regard him as epileptic on the ground of the pride and irascibility which were such prominent features in the poet's character.

### A HUMAN OSTRICH.

A curious case, showing what the human body will tolerate, is reported by Mister Frederick Eve, of the London Hospital. In a man suffering from intestinal obstruction, on making an abdominal section the ilium was found to be perforated in one place by a square piece of tin, and in another place by a metal hook. On a post-mortem examination of the case, which resulted fatally, the bowel was found completely clogged by foreign bodies. Among the collection were found forty pieces of cork, thirty pieces of doubled tin-foil, nine pennies, one iron ring, ten or twelve pieces of clay-pipe stems, three pieces of leather, and several pieces of string, with sundry other articles. The man, it would appear, had for some time earned his living by eating these indigestible and unnutritious articles.

### A NEW VIEW OF MENSTRUATION.

A new view of menstruation is expounded in a paper presented by Mister Christopher Martin to the British Gynecological Society. The writer believes menstruation to be a function analogous to micturition and defecation, in that it is presided over by a special menstrual centre in the lumbar portion of the spine. He also admits the existence of a menstrual nerve, the so-called splanchno-pelvic. Martin quotes cases in support of his view, one being the case of a woman whose spine bifurcated below the waist and who had two pelves. Menstruation appeared synchronously on both sides, and the synchronous "menstrual beat" **Martin** conceives to indicate the existence of a higher centre than the nervous mechanisms of the pelvic ganglia. The theory is an interesting one and will doubtless be heard from again.

### PERMANGANATE OF POTASH IN MORPHINE POISONING.

The communication of Doctor **William Moor** to a recent number of *The Medical Record*, recommending that potassium permanganate be administered in morphine poisoning, is an important contribution to our knowledge, if facts justify the author's conclusions. Doctors Moor considers the permanganate a safe and reliable antidote for morphine, provided it be given as soon as the poison has been swallowed. The dose is from ten to fifteen grains dissolved in one-half pint of water, and repeated at intervals of thirty minutes. The usefulness of the drug is probably restricted to the period of the poison's ingestion. When opium coma has overtaken the patient, and he is under the systemic effect of the poison, it is not to be expected that this remedy should have any special effect in mitigating the dangerous symptoms.

## MEDICAL NEWS.

### OFFICERS ELECTED AT THE SAN FRANCISCO MEETING.

The American Medical Association selected the following gentlemen to conduct its affairs for the ensuing year: President, Doctor Donald Maclean, of Michigan; first vice-president, Starling Loving, of Ohio; second vice-president, William Warson, of Iowa; third vice-president, W. B. Rogers, of Tennessee; fourth vice-president, F. S. Bascom, of Utah; treasurer, S. P. Newman, of Illinois; permanent secretary, W. B. Atkinson, of Pennsylvania; assistant secretary, G. H. Rohé, of Maryland; librarian, no election; trustees, Joseph Eastman, of Indiana, J. T. Priestly, of Iowa, J. E. Woodbridge, of Ohio, D. W. Graham, of Illinois, and J. W. Graham, of Colorado; members of the judicial council, J. D. Crothers, of Connecticut, C. H. Gillespie, of Tennessee, W. T. Bishop, of Pennsylvania, C. H. Hughes, of Missouri, I. J. Heiberger, of the District of Columbia, and H. Brown, of Kentucky; to deliver the address on medicine, W. E. Quine, of Illinois; address on surgery, C. A. Wheaton, of Minnesota; address on state medicine, H. D. Holton, of Vermont; chairman of the committee on nominations, Jerome Cochran; chairman of the committee of arrangements, Julian J. Chisholm, of Maryland.

### THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

The third triennial meeting of this body convened in Washington on Tuesday, May 29. The Congress is composed of fourteen of the principal special societies of national import, and its president is chosen from these societies in rotation. The business of the Congress is all transacted by an executive committee composed of one member from each constituent society, in conjunction with a committee of arrangements similarly selected. This plan enables the organization to devote its entire time to scientific work, the special societies or sections meeting in the morning, and the Congress proper in the afternoon. The meeting recently held was a very successful one. The fourteen societies were represented and a large number of excellent papers were read and discussed.

## A MEDICAL COLLEGE FOR COLORED STUDENTS.

An institution especially designed to impart medical instruction to colored students has just been incorporated in Baltimore. A hospital and free dispensary, two necessary adjuncts to a properly conducted medical school, have also been established. The faculty of medicine comprises eight colored physicians and surgeons, and their idea is to start with a dispensary, one or two hospital wards, and a medical call department for free treatment in homes, making this the nucleus of a medical college in which colored students can receive professional training with abundant opportunities for clinics and bedside practice. It is said this will be the only hospital in the South controlled and attended entirely by colored physicians. The idea is commendable and has received warm encouragement from prominent physicians in that city. The enterprise will be managed by twelve directors, including the eight members of the faculty, one of whom is C. H. Fowler, of the class of 1889, of the University of Michigan. As Baltimore has a colored population of about seventy-five thousand, an abundance of clinical material is assured. There are between fifteen and twenty colored physicians practicing in the city. The hospital is to be maintained by voluntary contribution.

## A SUIT FOR MALPRACTICE IN CINCINNATI.

Doctor C. D. Palmer, of Cincinnati, has just had a suit for malpractice decided in his favor. In 1888, while performing a perineal operation upon a woman, he broke the needle, and careful search failed to find one of the fragments, either in the tissues or elsewhere. The patient not acting satisfactorily under the anesthetic further search was considered unwise, and the operation was concluded. Soon afterward the doctor received injuries in a runaway accident, remaining unconscious or semi-unconscious for about a month, and being utterly unable to attend to practice for a year. In the meantime another physician operated on the woman and found the needle encysted. Suit was brought for $10,000. The jury rendered a verdict for the defendant on the first ballot. Doctor Palmer has been professor of gynecology in the Medical College of Ohio for a quarter of a century, and is connected with the Cincinnati and Presbyterian Hospitals.

## THE PENNSYLVANIA STATE MEDICAL SOCIETY.

The recent meeting of the Pennsylvania State Medical Society was a very successful one. There were 516 members in attendance, and the program represented papers galore. Resolutions were adopted condemning the proposed reduction of appropriations for the army medical service; opposing the revision of the code of ethics of the American Medical Association; advocating the passage of a bill by the legislature of that state for the prevention of blindness; criticizing the business management of *The Journal of the American Medical Association;* directing secretaries of county societies to forward quarterly to the State Board of Medical Examiners lists of physicians registered in their respective societies; and to secure that no sectarian designation should be applied by the Medical Council of that state to the State Board of Medical Examiners appointed from the members of that society, or to the physicians coming before them for examination. The following were elected officers for the ensuing year:

President, Doctor John B. Roberts; first vice-president, Doctor S. C. Stewart; second vice-president, Doctor J. A. Lippincott; third vice-president, Doctor J. H. Wilson; fourth vice-president, Doctor R. Armstrong; secretary, Doctor William B. Atkinson; assistant secretary, Doctor H. G. Chritzman; treasurer, Doctor G. B. Dunmire; members of judicial council, Doctor C. L. Stevens, Doctor I. C. Gable, Doctor W. T. Bishop. Chambersburg was chosen as the place for the next annual meeting, and Doctor George S. Hull of that place chairman of the committee of arrangements.

## THE OHIO STATE MEDICAL SOCIETY.

This organization held a very successful meeting at Zanesville last month. The attendance was greater than at any previous gathering in the history of the society, the papers were excellent, and the discussions animated. A special committee on legislation was appointed to formulate a law governing the practice of medicine in that state and endeavor to secure its enactment. The election of officers for the ensuing year resulted as follows: President, Doctor D. N. Kinsman; first vice-president, Doctor C. O. Probst; second vice-president, Doctor M. Stamm; third vice-president, Doctor J. C. Buckner; fourth vice-president, Doctor Robert Peter; secretary, Doctor Thomas Hubbard; assistant secretary, Doctor Charles Graefe; treasurer, Doctor James A. Duncan. The next meeting will be held at Columbus.

## A PHYSICIAN'S CRUISE AROUND THE WORLD BY SCHOONER.

Doctor W. C. Ransom, a well-known and wealthy physician of South Haven, Michigan, is the originator of a scheme to embark in a three years' cruise around the world in search of strange peoples and things with which to form a cosmopolitan museum. The Trip Around the World Company was recently organized in Chicago, and on July 4 the schooner will sail from South Haven harbor. The party chosen to participate in this novel and delightful voyage is composed of both men and women, including artists, photographers, students, scientific specialists and newspaper correspondents, besides a crew of experienced seamen. Every person who will accompany the expedition must be a stockholder in the company and must perform the duties assigned by Doctor Ransom, the originator of the scheme, who will be chief director of navigation and will have full control of the expedition—the idea of which first occurred to him long ago when he spent fifteen years in traveling over the globe. On the return of the vessel from her quest for the peculiar and the interesting, she will become for a time a floating museum on the great lakes, but her collections will be finally exhibited in a permanent museum at Chicago or some other large city. This proposed museum will be first established by the stockholders of the company, who remain at home, with the specimens which are to be sent to them by the expedition from time to time before its return. The course of the expedition will be eastward through the great lakes and the river Saint Lawrence to the Atlantic, and after leaving the American coast Norway and Sweden will be the first objective points. From Saint Petersburg along the shores of the Baltic and the German, Danish and French coasts, the schooner will sail to the British Isles, and a visit to Sunny Spain and Portugal will precede a cruise of the Mediterranean, varied by a pilgrimage into the Holy Land and a trip up the Nile. Passing through the Suez canal and the Red Sea, the expedition will coast eastern Africa, visit Madagascar, and turning northward the party will spend some time in India, Ceylon, Burmah and Siam, all the while gathering productions of native art and usage and other quaint things that may be found to illustrate the domestic and public life of the inhabitants of the strange countries visited. Then the expedition will become well acquainted with the East Indies, Australia, New Zealand, the Philippine Islands, China and Japan, the "Sunrise Kingdom," and gradually, from isle to isle of the myriad groups that dot the South Pacific, the schooner will come nearer home until by a long voyage from the Hawaiian group she will touch the American continent again at Alaska. Down the western coast of the Americas to the Straits of Magellan, northward again to the Amazon, up its mighty flood and back again, here and there through the West Indies, and along the coast of Central America and Mexico, the little craft will make her way slowly toward the north until reaching the mouth of the Saint Lawrence again, she will retrace between its beautiful banks and through the lakes the course by which she first left home. It is proposed to largely pay the expenses of the trip by occasional trading from port to port, which it is believed can be easily made remunerative.

## MINOR INTELLIGENCE.

THE wet nurses in Austria are on a strike.

THE king of Italy is said to have cancer of the larynx.

A NATIONAL Bureau of Health is demanded in Canada.

LOUISVILLE has one physician to every 333 inhabitants.

A HOSPITAL for lepers has been established at Rio de Janeiro.

AN association for the care of convalescent children is proposed.

THE membership of the Kansas State Medical Society is about 300.

IN Louisville, Kentucky, each practicing physician is taxed ten dollars.

THE Indiana State Medical Society has about twelve hundred members.

A HOSPITAL exclusively for colored people is being erected in Saint Louis.

THE mortality from tuberculosis in the United States is about 450 per day.

A COMMISSION to study tuberculosis in cattle will be appointed in New York.

AN international congress of hygiene will be held at Buda-Pesth in September.

FROM January 1 to May 1 there had been 1,210 cases of small-pox reported in Chicago.

THE Texas State Medical Association has elected Doctor J. W. McLaughlin its president.

BERLIN claims to be the healthiest city in the world. Its death-rate is only 16.3 per 1000.

A SECTION on medical journalism will be a feature of the next International Medical Congress.

DURING Doctor Donald Maclean's sojourn in San Francisco he delivered a clinical lecture at the County Hospital, and performed two hip-joint amputations.

DOCTOR CHARLES A. WHEATON, of Saint Paul, has been nominated for mayor by the Republicans.

A FILTRATION plant for the public waterworks will be constructed in Providence, Rhode Island.

DOCTOR OLIVER WENDELL HOLMES is preparing an autobiography to be published after his death.

TWENTY-TWO nurses were recently graduated from the Johns Hopkins Hospital Training School.

SIR JAMES PAGET, the eminent London surgeon, celebrated his golden wedding-day on May 23.

THE Maryland State Medical Society has appointed a committee to revise the physicians' fee table.

THE Philadelphia County Medical Society has elevated Doctor John C. DaCosta to its presidency.

THE legislature of Maryland recently passed an act granting $75,000 for the erection of an insane asylum.

IT is rumored that the editor of *The Journal of the American Medical Association* is a candidate for Congress.

DURING April 544 cases of small-pox were reported in Chicago. The first week in May there were 162 cases.

THE public hospitals of Paris are attended by eighty-eight physicians, forty-four surgeons, and nine accoucheurs.

THE American Academy of Medicine will hold its next meeting at Jefferson, New Hampshire, on August 29 and 30.

IT is said there is not a physician in the United States who realizes an income of $100,000 per year from his practice.

DOCTOR G. S. MOORE, of Glasgow, recently deceased, bequeathed $225,000 to found a convalescent home for nurses.

THE legislature of New York has passed a bill increasing the annual salary of police surgeons from $2,200 to $3,000.

THE Women's Medical College of Pennsylvania recently conferred the degree of Doctor of Medicine upon fifty women.

THE Illinois State Medical Society will endeavor to induce the legislature of that state to establish an epileptic colony.

DOCTOR GEORGE W. BROWN, secretary of the New Jersey State Board of Health, died of consumption in Trenton on the 29th ultimo.

THE four medical colleges of Washington, District of Columbia, recently conferred the degree of Doctor of Medicine upon 107 applicants.

AT the recent commencement exercises of Jefferson Medical College the degree of Doctor of Medicine was conferred upon 163 applicants.

THE Royal College of Physicians will be under the presidential rule of Professor James Russell Reynolds who succeeds Sir Andrew Clark, recently deceased.

THE Czar of Russia will contribute fifty thousand roubles toward the next International Medical Congress to be convened in Saint Petersburg.

A BROOKLYN justice has ruled that compulsory vaccination is illegal and the health officer of that city will contest the decision in a higher court.

THE Iowa state library has been enlarged by the addition of four hundred volumes, largely historical, the gift of Doctor Asa Horr, of Dubuque.

MONOSULPHITE of sodium is recommended in lead poisoning. Doctor Perou states that forty centigrammes a day afford rapid relief in lead colic.

PRESIDENT CLEVELAND has appointed Doctor W. W. Keen, of Philadelphia, a member of the board of visitors of the West Point Military Academy.

AT the recent commencement exercises of Jefferson Medical College the degree of Doctor of Laws was conferred upon Doctor William Goodell.

DOCTOR U. O. B. WINGATE, of Milwaukee, has been appointed secretary of the Wisconsin State Board of Health, *vice* Doctor J. T. Reeve, resigned.

THE American Medical Association has a membership of ninety-six in Washington, while in Baltimore, a city twice as large, it has only thirty-four.

THE degree of LL. D. and the erection of a statue are honors that will be conferred on Doctor William Pepper by the University of Pennsylvania.

PROFESSOR VINCENZ CZERNY, of Heidelberg, has been appointed to the chair of clinical surgery recently made vacant by the death of Professor Billroth.

MISTER CHARLES C. HARRISON, of Philadelphia, has been elected provost of the University of Pennsylvania, *vice* Doctor William Pepper, recently resigned.

JAMES PLAYFAIR MCMURRACH, of Cincinnati, has been appointed professor of anatomy in the University of Michigan, *vice* Doctor Corydon L. Ford, deceased.

THE supreme court of Nebraska has decided that Christian scientists must procure certificates from the State Board of Health before dispensing their healing powers.

THE Association of American Medical Colleges, at its late meeting in San Francisco, elected Doctor E. Fletcher Ingalls, of Chicago, president for the ensuing year.

A MOVEMENT is being made to establish a hospital for consumptives in or near Baltimore. Plans are being formulated for the erection of a similar hospital in New York.

DOCTOR DON M. CAMPBELL, of Detroit, was married to Miss Alice Douglas, of the same city, on Tuesday evening, June 5. The bride is a daughter of Doctor Charles Douglas, of Jefferson avenue.

DOCTOR J. B. MURPHY, of Chicago, of Murphy button fame, was tendered a banquet by the Chicago Academy of Medicine, on the occasion of his return from Europe, Friday evening, May 18.

THE city council of Paris has contributed 1000 francs ($200) toward the erection of a monument to Charcot. M. Pasteur is president of a committee appointed by the council to superintend the execution of the work.

GERMANY will abolish the "slanting" system of handwriting and adopt the "perpendicular" for hygienic reasons. The objections to the former method were cited in an article published in this journal several months ago.

Two new medical societies have been organized in Saint Louis, Missouri: The Saint Louis Association of Pathologists and Physicians, and The Saint Louis Clinical Society. Doctor A. H. Ohmann-Dumesnil is president of the latter.

A DEATH from apoplexy while under chloroform-ether narcosis recently occurred in Mister Lawson Tait's private hospital in Birmingham. The patient was a woman, and the anesthetic was composed of one part of chloroform and two parts of ether.

DOCTOR J. S. WIGHT, of Brooklyn, is the inventor of a needle designated the hook-eye needle. It is split at the eye end: one piece is bent into a hook to make the eye; the other piece projects beyond the hook to catch the thread and guide it into the hook-eye.

DOCTOR ANDERSON BROWN, an English woman physician has established an industrial farm for inebriate women. The experiment will be conducted under the auspices of the Women's Temperance Association, and one of its chief features will be outdoor occupations.

WILLIAM DEERING, of Chicago, a wealthy manufacturer, has given $50,000 to the trustees of the Northwestern University to endow a chair in honor of Doctor N. S. Davis in the medical department of the University—Chicago Medical College—which was founded by the doctor.

DOCTOR JOHN NORTH, of Toledo, Ohio, is the inventor of a new portable air-compressor for the administration of spray treatments outside the office. The device is operated by compressing two rubber bulbs alternately with the foot, thus producing a steady and constant current of air.

A MASONIC home for consumptives is likely to be founded in New Mexico. Montezuma Lodge, of Santa Fé, has inaugurated a movement for that purpose, and invites the masons of the United States and Canada to lend their coöperation in erecting a national home to be governed and maintained by masons.

A BILL to amend the health law of New York has been vetoed by Governor Flower. The bill provided for the addition of certain criminal penalties to the civil penalties now imposed for practicing medicine without legal authority. It was supported by the State Medical Society and approved by the profession generally.

THE Toronto courts have recently been considering the contagiousness of consumption. A health officer requested the dismissal from school of a child suffering with phthisis, and this exercise of authority precipitated a legal contest. The judge sustained the action of the official, claiming the disease contagious.

THE Washtenaw County Medical Society recently held its annual meeting in Ypsilanti, at which a paper on "Consumption" was read by Doctor T. S. Murdock. The election of officers for the ensuing year resulted as follows: President, Doctor Heneage Gibbes; secretary, Doctor M. L. Belser; treasurer, Doctor W. F. Breakey.

THE Wistar Institute of Anatomy of the University of Pennsylvania was formally opened on Monday, May 21. The building is a gift from General J. I. Wistar, a great-nephew of the former professor of anatomy, and will provide a permanent home for the famous Wistar and Horner museum of anatomical and pathological preparations.

THE commissioners of the District of Columbia will ask Congress to consider a bill which contemplates the regulation of the sale of milk. The present law is defective and inadequate, and much adulterated milk has been dispensed. The Medical Society of the District are examining the provisions of the bill prior to submitting it to Congress.

DOCTOR J. H. KELLOGG, of Battle Creek, Michigan, physician-in-chief of the Sanitarium, has invented an improved dynamometer. It is pronounced an accurate indicator of the dynamic energy of the body, and shows the actual ability of the individual to manifest energy through his muscular system as a whole and through each particular part of it.

VACCINATION, which has been very unpopular in the lower and middle classes of London, has an ardent advocate in Doctor Yarrow, who proposes increasing the popularity and efficiency of the operation by having the government award a premium to each successful case. The doctor is averse to vaccinating in only one place, and considers the practice improper and inefficient.

A NEW device for intestinal anastomosis is announced by Doctor Byron Robinson, of Chicago. It consists of two metal discs around whose circumference there is a groove. In the groove is placed a hollow rubber tube. The two discs are clamped together with a rachet or spiral screw. The principle on which the device works is similar to that of Dennan's cylinders.

STATISTICS show that there is one deaf and dumb person to every 1,492. There are now 311 pupils at the school for the deaf and dumb at Flint. On the basis of the above statistics Michigan has about 600 of these unfortunates, 300 of whom are scattered around the state and are receiving no training that would enable them to become wholly or partially self-sustaining.

SMALL-POX has made its appearance in Detroit. At this writing about a dozen cases have been reported. The Health Commissioner has been accused of negligence and asked to resign. Declining to comply with the request of the Board of Health, his office was declared vacant at a late meeting, and two medical members of the Board appointed to act temporarily—one as Health Commissioner and the other as Health Officer. Doctor Younghusband will perform the duties of the former office, while Doctor Schulte will officiate as the latter.

DOCTOR E. S. ELDER, of Indianapolis, died on the 9th ultimo, of peritonitis following intestinal obstruction. The doctor was born in Hillsborough, Indiana, of English ancestry, in 1841, and graduated from the Medical College of Ohio in 1867, and the Bellevue Medical College in 1876. He was president-elect of the Indiana State Medical Society, and its secretary for fourteen years; dean of the Medical College of Indiana, and professor of the principles and practice of medicine in the same College, and business manager of *The Indiana Medical Journal.* A wife is left to mourn his loss.

THE Wisconsin State Medical Society elected the following officers at its recent meeting in Milwaukee: President, Doctor Almon Clark, of Sheboygan; first vice-president, Doctor J. A. Ballard, of La Crosse; second vice-president, Doctor U. O. B. Wingate, of Milwaukee; secretary, Doctor C. S. Shelden, of Madison; assistant secretary, Doctor C. M. Gould, of West Superior; treasurer, Doctor S. S. Hall, of Ripon.

THE executive officers of the State Boards of Health of Michigan, Ohio, Illinois, Wisconsin, and Indiana, have adopted the following quarantine measure: *Resolved*, That no vessel plying on the lakes should be allowed to enter any port within the boundaries of our respective states without having on board, subject to inspection, a bill of health, duly signed by an officer of the United States Marine Hospital Service.

THE Indiana State Medical Society held its forty-fifth annual meeting at Indianapolis, May 17 and 18. Four hundred members were present. The officers elected for the ensuing year were: President, Doctor E. S. Elder (since deceased), of Indianapolis; vice-president, Doctor C. S. Bond, of Richmond; secretary, Doctor F. C. Woodburn, of Indianapolis; assistant secretary, Doctor K. K. Wheelock, of Fort Wayne.

THE health officers of Michigan held their second annual conference in Ann Arbor, on June 14 and 15, under the auspices of the State Board of Health, the president, Mister Frank Wells, in the chair. Tuberculosis was the subject considered on the first day, a general discussion being indulged, and demonstrations given in the methods of growing and staining bacilli. The second day was devoted to the consideration of typhoid fever, diphtheria, and small-pox.

THE legislature of New York has passed a bill establishing a pension fund for employes of the health department. This act provides for physicians, nurses, clerks, and other employes who have served a term of twenty years, and for the families of employes dying while in discharge of duty. The pensions will be paid from a fund created by the fines and penalties collected for violations of the city health laws, and by fees for examinations of the records.

A DAIRYMAN in Washington, District of Columbia, whose farm is stocked with registered Jerseys and Holsteins, recently had the Koch tuberculin test applied to his cattle. Of ninety animals inoculated several were found to be tuberculous. Five of the latter were afterward slaughtered and the presence of tubercle demonstrated. A calf, the offspring of one of the affected cows, was also killed and tubercles found in the lungs. The animals sacrificed were valued at one thousand dollars.

DOCTOR JUDSON DALAND, of Philadelphia, has invented an instrument for counting blood-corpuscles. It works on the centrifugal-force principle, and accomplishes the measurement by means of comparative bulks. A quantity of blood is placed in a finely-graduated tube and the latter revolved at a speed of about one thousand revolutions a minute. The corpuscles divide by force of gravity and form on the side of the tube in easily-traceable divisions of red corpuscles, white corpuscles, and serum. The new method permits of larger and, consequently, more representative quantitatives being used in experimenting, as well as doing away with actual microscopic counting.

THE forty-third annual meeting of the Iowa State Medical Society was held in Des Moines on May 16–18. The attendance was small, less than two hundred members being present. The election of officers resulted in the following selection: President, Doctor A. L. Wright, of Carroll; first vice-president, Doctor D. S. Fairchild, of Clinton; second vice-president, Doctor T. J. Maxwell, of Keokuk; secretary, Doctor J. W. Cokenower, of Des Moines; assistant secretary, Doctor F. E. Sampson, of Creston; treasurer, Doctor G. R. Skinner, of Cedar Rapids. The next meeting will be held at Creston.

THE Illinois State Medical Society convened in Decatur on May 15. During the session, which continued three days, four addresses were delivered, forty-six papers were read, and a large amount of regular and miscellaneous business dispatched. The following were elected officers for the ensuing year: President, Doctor D. R. Brower, of Chicago; first vice-president, Doctor A. C. Corr, of Carlinville; second vice-president, Doctor C. B. Johnson, of Champaign; permanent secretary, Doctor John B. Hamilton, of Chicago; assistant secretary, Doctor E. P. Bartlett, of Springfield; treasurer, Doctor George N. Kreider, of Springfield.

DOCTOR DONALD MACLEAN tendered the comforts of his private car to a number of physicians who indulged in the trip to San Francisco. The party started from Detroit and was composed of the following: Donald Maclean, A. N. Collins, R. W. Gilman, A. W. Imrie, D. LaFerte, F. W. Mann, J. J. Mulheron, F. W. Robbins, T. B. Tibbals, W. G. Hastie, Detroit; W. E. Burtless, Saint Clair; H. S. Chapman, F. B. Galbraith, Pontiac; W. T. Dodge, Big Rapids; H. Kremers, Holland; D. McLeay, Prairieville; C. G. Suylandt, Gladwin; H. D. Thomason, Albion; D. E. Fuller, Hastings; G. W. Stoner, Baltimore, Maryland; M. Stamm, Fremont, Ohio; A. L. Smith, Montreal, Canada.

DOCTOR PLYMMON S. HAYES, of Chicago, died of pneumonia on May 14. The doctor was born in Ohio, December 1, 1850, and graduated from Rush Medical College in 1872. He held the professorship of chemistry in the Woman's Medical College from 1876 to 1883, and also in the School of Pharmacy. At the time of his death he was professor of electro-therapeutics in the Chicago Polyclinic. Doctor Hayes was considered an authority on electro-therapeutics, and several of his works have been translated into French and German. He was a member of local, state, and national medical societies, and prominently identified himself with religious and charitable work in Chicago. He was married in 1876, and leaves a widow and three children.

THE American Medical Editors' Association held its annual meeting and banquet at the Palace hotel, in San Francisco, Monday evening, June 4. The banquet was tendered by Mister R. E. Queen, of San Francisco, and nearly one hundred editor-physicians and their guests were present. With the usual gastronomic recklessness of physicians the banqueters plunged into all kinds of indigestible dainties, and indulged in the customary post-prandial platitudes, Doctor I. N. Love, of *The Medical Mirror*, officiating in the capacity of toastmaster. The officers for the ensuing year are: President, Doctor John B. Hamilton, of Chicago; vice-president, Doctor G. H. Gould, of Philadelphia; secretary, Doctor H. B. Ellis, of San Francisco. The next meeting will be held in Baltimore in May.

THE fiftieth annual meeting of the American Medico-Pshycological Association was held in Philadelphia on May 15 to 18 inclusive. This society was formerly known as the Association of Medical Superintendents of American Institutions for the Insane. The following were chosen officers for the ensuing year: President, Doctor Edward Cowles, of Summerville, Massachusetts; vice-president, Doctor Richard Dewey, of Chicago; secretary and treasurer, Doctor Henry M. Hurd, of Baltimore. The latter, who for many years was medical superintendent of the Eastern Michigan Asylum for the Insane, read a paper entitled "American Alienists of the Past Half Century."

# RECENT PUBLICATIONS.

## REVIEWS.

### ESSENTIALS OF MEDICINE.*

HIGH praise has already been accorded these excellent question compends on the appearance of their first editions. The second editions have been made modern in every way, and the student will not be disappointed in their contents in any case.

* Anatomy: By C. B. Nancrede, M. D., Ann Arbor, Michigan.
* Nervous Diseases and Insanity: By J. C. Shaw, M. D., Brooklyn, New York.
* Pharmacy: By Lucius E. Sayre, Ph. G., Brooklyn, New York.
Price, $1.00. W. B. Saunders, Philadelphia.

### TREATMENT OF TYPHOID FEVER.*

THE subject of typhoid is carefully considered in Doctor Stewart's brochure, which is not notable for anything particularly original or novel, but gives the reader an excellent opportunity for reviewing the whole subject.

* By D. D. Stewart, M. D., Philadelphia. Paper, 25 cents. George S. Davis, Detroit.

### INTERNATIONAL CLINICS.*

THE new volume of "International Clinics" is a very interesting one. It begins with a memorial on Charcot and ends with a lecture on common skin diseases, and all kinds and varieties of medical and surgical topics are discussed in the intervening forty-two lectures. There are many lectures which deserve particular mention, but where all are so excellent, it might be unjust to particularize any for singular distinction. It is gratifying to find the Clinics receiving the support they so well deserve.

* A quarterly of clinical lectures. Edited by Judson Daland, M. D., Philadelphia; J. Mitchell Bruce, M. D., F. R. C. P., London; and David W. Finlay, M. D., F. R. C. P., Aberdeen. Volume I. Fourth series. J. B. Lippincott Company, Philadelphia.

# PRACTICE.

## CLINICAL NOTES.

**Messrs. John Wyeth & Brother**, in their advertisement in this issue bring to the notice of the profession a number of remedial agents and combinations that have been found most useful in the treatment of the grippe or influenza in former epidemics of this scourge. In the form of compressed powders or pills they present the most readily soluble means of administering these agents and their consequent rapid action upon the economy.

In referring to Peacock's chionia, I may say it is very nearly, if not quite, a specific remedy for constipation. I have prescribed it in obstinate cases of confirmed constipation, and in each case the remedy has proved successful. One lady who had been afflicted for years with the most obstinate constipation, took one eight-ounce bottle at my suggestion; this occurred four months ago, and since that time she has been free from any symptoms of her former malady, and is to-day in the best of health and spirits.—H. Pace, M. D., Port Sarnia, Ontario.

I have been using your preparation of oulo-kutun, and take pleasure in saying that I am very much pleased with it. I have been employing it in my gynecological practice and find that it lacks the peculiar irritating qualities of that wool possesses, yet has its absorbent qualities to the fullest degree. Unlike the ordinary absorbent cotton, when used as a tampon, it does not absorb moisture on the surface simply, thus forming an impervious mass, but continues to absorb until thoroughly saturated.—E. S. Elder, M. D., Dean of the Medical College of Indiana.

**Doctor Leo Egger, of Vienna, on American Manufacturing Pharmacy.**—The eagerness of Americans in general to learn what European travelers think of our land and its institutions, and their excessive sensitiveness to the severe criticisms of some distinguished foreigners in the past—Charles Dickens, for example—have long been regarded as constituting an amusing foible in the national character. The all exaggerating humorist has not failed to seize upon this trait, and to make all manner of fun of the enterprising journalists who send their reporters out in tugs to greet the arriving celebrity and ascertain his "impressions of America" ere he puts foot on our soil! Certain it is that an unusual interest attaches to the comments of intelligent Europeans, if made with proper care after ample and adequate opportunity for observation, reflection, and comparison. Such interest is not found wanting in a recent contribution to the well known *Pharmaceutische Post*, by Doctor Leo Egger, of Vienna, on the subject of American pharmacy in general and, notably, the development of industrial pharmacy as typified in our most extensive manufactories. We quote briefly from Dr. Egger's report: " It remains for me to speak briefly of individual manufacturing establishments. This journal has previously contained such detailed reports on Parke, Davis & Company, of Detroit, that I need add but a few words respecting the internal operation of these laboratories which stand alone in extent and perfection of equipment. The most outrageous pedant is forced to unqualified admiration when he sees the painstaking care and caution to ensure reliability, with which the colossal manufacturing operations are conducted, and with which every single pill, tablet, solution, and extract is made actually and absolutely to contain what is claimed on the label. This is achieved by a remarkable system of graduated responsibility within the entire corps of officials, each superior being held accountable for the errors of his subordinates, should the real culprit not be detected. A visit to this factory shows that operations on a manufacturing scale are conducted at no sacrifice whatever of the accuracy and caution characteristic of our craft—on the contrary, that the extensive production renders possible a perfection in the preparations which would be inconceivable in work of lesser magnitude."

An Antiseptic, Analgesic and Calmative Admixture.—H. B. Pettingill, M. D., Mystic Flats, Thirty-ninth and Broadway, New York City, in an article on "Intestinal Antisepsis" in *New Pharmaceutical Products*, gives some excellent experience from which the following is selected: "Doctor Van Valgah in a paper on the 'Causation and Treatment of Chronic Diarrhea,' in the New York *Medical Record*, says: 'Having secured as nearly as we can a clean and sweet state of the digestive tube, our next object is to get perfect digestion of the food taken. This is an aim second to no other in importance. Undigested food in the wrong part of the intestine is an irritant. Rapid absorption is the chief barrier against superdigestion, fermentation and putrefaction, and perfect digestion is the essential preliminary to the easy and healthy performance of the function of the mucous membrane.' Now with this condition of affairs and the administration of proper remedies, we can expect to destroy the pathogenic bacteria and the resulting toxines can be rendered innocuous. The tyrotoxicons belonging to the toxalbumen type are readily destroyed by the decomposition of salol in the intestinal tract. Salol is a salicylate of phenol, and as said before, is not acted upon until it passes through the stomach, and when the phenol is set free in the intestine it has its maximum antiseptic power. Now in addition to this, we have the calmative and analgesic effect of the antikamnia, which effect is so often necessary, and where in many cases opium is contraindicated. Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact that antikamnia in combination with various remedies has a peculiarly happy effect; particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections, and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations in this country are wonderfully relieved by the use of this combination. The five-grain tablet containing 2½ grains each of antikamnia and salol, is recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol makes the urine acid and clears it up. This remedy is a reliable one in the treatment of summer diarrhea, entero-colitis, dysentery, et cetera. In dysentery, where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by salol and antikamnia, will give results that are gratifying." In closing his paper, Doctor Pettingill adds: "It is also one of the best remedies for the relief of the headache and pains of influenza ('the grippe'). The muscular pains which so often accompany this disease, and which seem to be a part and parcel of it, are often relieved at once by a full dose of this combination. Great reliance can be placed in the admixture of these two drugs in those diseases in which the onset is sudden, and which are attended with great pain and hyperesthesia with intense nervous derangement, particularly when the temperature rises to 102° or 103°. By its antithermic, analgesic and neurotic properties it fills a want scarcely found in any other remedy."

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### THE ERADICATION OF CONTAGIOUS DISEASES.*

BY G. H. SHERMAN, M. D., DETROIT, MICHIGAN.

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WHEN man is confronted with a visible enemy every available force is applied to dispel the intruder, and positive indications as to where to direct the blow are patent. But when the foe is a subtle, invisible poison, which is communicated from friend to friend, from father to child, from sister to brother, from one community to another, unaware to the communicants, then the mode of attack becomes a difficult one and requires careful consideration. For thousands of years superstition enslaved mankind with the idea that disease is due to the visitations of a vengeful deity, but the light of reason, aided by the microscope and the test-tube, has brushed away this cloud of darkness, and now we recognize the fact that many diseases are communicable, and may be prevented if proper methods are pursued. When the communicability of a given disease is once established the idea of isolating the diseased from the healthy at once suggests itself. This principle of isolation, however, should not be applied with the idea of simply mitigating the ravages of the disease, but with a positive determination to eradicate it if such a thing is possible.

What can be accomplished in preventing communicable diseases history and the reports of the various boards of health show us. Leprosy, which was probably the earliest recognized communicable disease, has been eradicated over a large portion of the world where it was prevalent, by isolation. The ancients regarded Egypt as the home of leprosy. It became established in Greece and Italy about the first century B. C. The disease soon made its appearance in Spain, Gaul and Britain. During the movements of the crusade in the eleventh century it became epidemic in western Europe. Laws requiring the isolation of lepers became more general in Europe, and leper houses were built in every considerable town. According to the "Encyclopedia Britannica," "lepers were strictly isolated and the practice was supported by public sentiment. They wore a special costume, usually a long gray gown, with hood drawn over the face, and carried a wooden clapper to give warning of their approach. They were forbidden to enter inns, churches, mills, or bake-houses, to touch healthy persons or eat with them, to wash in the same stream or to walk in narrow paths." The disease began to decline in the fifteenth century, and disappeared in the middle of the seventeenth century, in western Europe.

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* Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

Venice, in 1348, appointed three guardians of public health to prevent the spread of plague, and in 1403 founded a lazaretto on an island near the city. In 1467 a lazaretto to isolate cases of plague was established at Genoa and one at Marseilles in 1476. Plague is now extinct in Europe, and will probably never gain a foothold there again. Quarantine lazarettos to prevent the introduction of cholera were established on the western coast of Europe in 1831. The feasibility of preventing cholera-infected persons from entering a non-infected community has been established by all civilized nations, and it is not necessary to repeat here what has been accomplished in preventing the spread of cholera during the last few years by isolation.

A profitable illustration as to what can be accomplished in eradicating communicable diseases is offered us by the United States Agricultural Department in the prevention of contagious pleuro-pneumonia among cattle. In 1887 the disease had spread in alarming proportions over the states of New York, New Jersey, Maryland, Pennsylvania and Illinois. The practice of extermination consisted of isolation and disinfection. Diseased cattle were destroyed and exposed ones isolated. The following figures taken from the "Annual Report of the Bureau of Animal Industry, ending June 30, 1892," show how the disease began to disappear from the time the practice of extermination was undertaken. The number of diseased cattle purchased by the department were: in 1887, 1,974; in 1888, 2,604; in 1889, 1,242; in 1890, 471; in 1791, 73; in 1892, 40; and in the latter part of 1892 there was not a case left in any of the states. Thus in the short time of five years a dangerous communicable disease among our cattle was eradicated, which had spread over five states. It cost $1,500,000 to accomplish this, but no one will say that this money was not well spent. The foregoing brief sketch shows that communicable diseases can be eradicated if isolation and disinfection are strictly enforced.

The directly communicable diseases which most particularly interest us at this time, are diphtheria and scarlet fever, because they are very fatal and prevalent in an endemic form over almost the entire country. The actual number of cases of scarlet fever and diphtheria that occur in Michigan cannot be ascertained, because they are not all reported to the state department. Doctor Baker, secretary of the State Board of Health, wrote me in answer to a letter of inquiry, that according to the best estimate the number of reported cases should be increased about forty per cent., and the number of reported deaths a little more than forty per cent. During the year 1889 there were reported to the State Board of Health 3,157 cases of diphtheria, resulting in 683 deaths. In 1890 there were 4,206 cases reported. The number of reported cases of diphtheria for the years 1891, 1892, and 1893, were not compiled at the writing of this paper, but were reported to the superintendent of vital statistics during 1890, 1,266 deaths; during 1891, 1,060 deaths; and during 1892, 1,020 deaths as having occurred from diphtheria. There were reported to the State Department, during 1889, 3,536 cases of scarlet fever, resulting in 166 deaths; during 1890, 3,836 cases, resulting in 222 deaths; and during 1891, 6,212 cases, resulting in 400 deaths. These figures show that the number of deaths resulting from scarlet fever and diphtheria do not diminish in Michigan, notwithstanding our quarantine laws which require strict isolation and impose a $500.00 fine or imprisonment for disobedience. That strict isolation prevents the spread of diphtheria and scarlet fever is shown by the report of the State Board of Health for 1890. According to that report 72 outbreaks of scarlet fever, where isolation and disinfection were neglected, resulted in 1,208 cases and 48 deaths, or 16.78 cases for each outbreak; and 52 outbreaks, where isolation and disinfection were enforced, resulted in 140 cases and 10 deaths, or but 2.69 cases for each outbreak. The same report shows that 41 outbreaks of diphtheria, where isolation and disinfection were neglected, resulted in 478 cases and 108 deaths, or 11.66 cases for each outbreak; and 63 outbreaks, where isolation and disinfection were enforced, resulted in but 98 cases, and 14 deaths, or only 1.58 cases for each outbreak. These figures show that diphtheria and scarlet fever are preventable, and if preventable, susceptible of eradication, if every case is strictly isolated and disinfection thoroughly done.

To isolate every case of diphtheria and scarlet fever with our present method is a difficult matter. Simply passing a law and fixing a penalty does not isolate. The health authorities must find the cases before they can enforce isolation, and to find every case is where the great difficulty lies. It has many times been suggested that all scarlet fever and diphtheria cases should be taken to a hospital, thus keeping them absolutely isolated. That would not be practicable because many people would rather take the chances of their children recovering without a physician than to have them taken to a hospital, and the public would then have no protection. Almost everybody is in favor of our quarantine laws as long as they affect some one else, but when it comes to the question of having their houses placarded and requiring them to stay at home or close their place of business, then objection is made. The opposition to having their houses placarded is the greatest when cases occur in families where retail groceries, butcher-shops, confectioneries, bakeries, ice-cream parlors, et cetera, are in connection with their residences. Every available influence is brought to bear on the attending physician to prevent him from reporting the case. Every assurance is given him that the nature of the disease will be kept from the neighbors. The opposition is often so great that the attending physician will comply with their wishes, and this is especially so if the case happens to be a mild one. Many people are so opposed to having their houses placarded that they will not call a physician when contagious disease enters their family. If the case should be a mild one, a few domestic remedies are all that are required until it recovers. During all this time other members of the family attend school or go out to work, while often neighbor children play with the sick ones in the house. Probably the greatest source of danger in spreading communicable diseases is the mild case. This is especially true of scarlet fever, because in scarlet fever mild cases are very common and the contagiousness continues for several weeks after an apparent recovery. The careless, good-natured neighbors are another source of danger in spreading disease. They say they are not afraid of "catching the disease," and go in and out of quarantined places at will. If we intend to eradicate scarlet fever and diphtheria we must make it possible to find every case and positively isolate them. This is not possible by our present method. If we make the laws more stringent we defeat our purpose by making the people unwilling to have their cases reported. If we make the laws less stringent they will take advantage of the situation, and in either case the disease will continue to spread.

Why all this opposition to being quarantined? Does not a large majority of our people recognize the necessity of isolating those having contagious diseases? Certainly, but this is usually so when it affects some one else. The members of an average family who are already burdened with disease are not willing to stay at home from work or close their places of business, thereby sustaining a financial loss to themselves, for the protection and benefit of the public unless the public gives them something in return; nor is it reasonable or just to expect them to do so. If isolating cases of contagious diseases is intended for the benefit of the public, and not for the benefit of the ones isolated, then the public certainly should be willing to pay liberally for the protection that is obtained. As long as we subject those who are isolated to a pecuniary loss in consequence of such isolation, enough cases will evade the law and remain undetected by the health authorities to keep these contagious diseases indefinitely with us in spite of all our laws, fines, penalties and sanitary inspectors. Eradication should be the objective point in view, and this can only be accomplished when every case is promptly reported and when the attending physician and the afflicted families coöperate with the health authorities. To obtain this coöperation some inducement must be given to the people to have their cases reported. The objection to being quarantined among the average people at best is only a question of dollars and cents. If the state would pay $25.00 per week to every family that is quarantined there would be no objection to having their houses placarded. A physician would be called at the first appearance of the disease and a hearty coöperation would be established with the health authorities at once. This would also bring out the mild and doubtful cases which are a great factor in spreading disease now. It would also make it financially possible for the families to isolate the sick from the healthy ones, and absolute isolation could be reasonably insisted upon.

The only objections that can be brought against this method are the possibilities of fraud and expense to the state. As to the first objection the health authorities certainly could make inspection often enough to protect the state against fraud. The expense certainly would be great at the start but that does not alter the situation. Time is money, and when anyone is quarantined he serves the state for the protection of the public. Has it come to this, that the great state of Michigan, with all her wealth, expects her afflicted citizens to serve the state without giving a fair compensation for the time served? It appears so from the irrational laws on our statute books regarding contagious diseases, which can only find a fitting parallel in the arbitrary rules of a czar, and have no place in the laws of a republic. And, aside from the justice of the case, a thing well done once is infinitely better than to be half doing all the time and never get finished. There undoubtedly has been more money spent in Michigan to combat scarlet fever and diphtheria than it would have required to eradicate them if the money had been properly applied, and yet we have the disease with us in as alarming proportions as ever.

The amount of money in proportion to the population which would be required would not be as large, however, as might be expected. Estimating the expense on the number of cases reported to the State Board of Health during the year 1890, allowing two weeks of quarantine for each case of diphtheria and four weeks for each case of scarlet fever, at $25.00 per week, would amount to $531,450. It is reasonable to suppose that the number of cases would diminish one-half the first year, which would make the expense $265,725. This, according to the population of the census of 1890, would make a per capita tax for Michigan of 12.7 cents, and I think there is not a tax collected to-day that the people would be more willing to pay. With this method it would only require a few years to have diphtheria and scarlet fever eradicated, when the expense to the state would amount to almost nothing, and other less dangerous diseases could be similarly treated.

The raising of the necessary money should not be left to the county and township boards, because the members of those boards are often ignorant and have an erroneous idea of practicing judicious economy. The state should make an appropriation and place it in the hands of the State Board of Health, so that the work could be carried on systematically over the entire state.

It is to be hoped that contagious diseases will be eradicated, not only in Michigan, but everywhere; then the happy time will have come when parents can look upon their children without fear of having them swept into an untimely grave by an invisible foe.

# AN ADDRESS ON ANTHROPOLOGY AND ETHNOLOGY.*

By EDWARD C. MANN, M. D., New York City.

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[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

## ANTHROPOLOGY.

THE lecture course of the Academy of Anthropology for the season of 1892–3 has been of the highest interest and scientific value, and I am glad to take this opportunity of extending my hearty thanks to the different members of the academy who have so ably and kindly coöperated with me in my endeavors to get the line of academy work on the highest plane of general anthropology. The lectures during November, December, and January dealt with *anthropology.* They dealt with man as a zoölogical species. They defined the differences which distinguish man from other species of the higher animals. They set forth his physical and mental peculiarities. They treated him as a unit in the series of organic forms and catalogued the traits which bind all his varieties into one species, while at the same time they separated him sharply from the highly developed mammals.

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* Delivered before the New York Academy of Anthropology.

In his *physical characteristics* we had our attention drawn to his *erect posture*, which at once distinguishes man from the highest species of apes and all other animal; to his *lower limbs*, which in proportion to the trunk are longer than in any other animal; to his *feet*, which are broader, stronger, and larger in proportion to the size of the body than in any other animal; to his *hands*, which in man are exempt from taking any part in the support of the body or in the act of progression, and to the intelligent use of which man owes the conquests over the forces of nature on which he has reared the fabric of his civilization. Accurate dissections have shown that the fore-feet of the higher apes possess certain muscles peculiar to the human foot, and not found in the hand, and are, therefore, feet in the strict sense of the word, so that man alone of all animals has a hand; to his *skin*, which is smooth and almost hairless, in strong contrast to the hirsute bodies of the higher apes. Most of the apes also have a separate bone of the face called the intermaxillary bone, which never appears in the human skeleton. The conformation of the lower jaw is also characteristic. The chin is most marked in the white race, becomes less marked in the negro, and does not exist in the apes. The conformation of the human teeth adapts man to eat either animal or vegetable food, but the presence of grinding, cutting and tearing teeth, equally developed in the jaws of any animal, is no proof that it is omniverous or is confined to a special variety of food. Some monkeys have large canines, yet live on vegetables, and all bats have well-formed incisors, canines and molars, yet some are purely fruit-eating, while others live exclusively on animal food.

In his *psychical characteristics* we have had our attention drawn to man's *emotions*, which although they clearly distinguish man from other species of animals, do not remove him from the chain of organic forms in which he stands merely as physically the most complete. The lower animals have much the same emotions as ourselves; to his *reasoning*, where the power of reasoning and the faculty of forming abstract conceptions do not seem to be the exclusive prerogative of man, but seem to be present in some degree in the more intelligent quadrupeds. As we observe the instinct and intelligence of the lower animals, we see that only in two directions does man possess intellectual properties wholly beyond the ken of these animals: in his religions and in his languages. Religion belongs exclusively to man and is not in any degree known or felt by inferior species. Language, articulate grammatical speech, is likewise the exclusive property of the human race. We have had our attention drawn also to *causality*, by which man's mind as distinguished from the intelligence or instinct of the lower animals recognizes and governs his actions by the observed relations of cause and effect. Also in the *manufacture of tools;* although the very lowest tribes of men make tools of great ingenuity, the very highest apes or the most advanced of the inferior animals never fashioned a single tool. In the most remote geologic age we have seen that man knew the use of fire and manufactured weapons.

Respecting the *unity of the human species*, we have seen that man of whatever race, clime, or color, has the same sentiments and tastes, the same emotions and passions wherever there is the same grade of culture. That we are all fellow-beings. That all varieties of men blend in fertile unions and produce offspring who in their turn are as fertile as were their parents. We have seen that there is a parallelism which prevails in the ethical development of the human race in all ages and in all parts of the globe. Nations of the same grade of culture present the most remarkable coincidences, not merely in their arts, customs, laws, and social arrangements, but even in the toys of their children, the imaginary tales of their gods, their religious symbols, their folklore and the stories invented for amusement. This is all to be attributed to the oneness of the mental nature which proves that man is of one blood and that in his mental processes he is always the same.

Respecting *the antiquity of man on earth and his first home*, we have seen that it was either immediately before, during, or else immediately after, the glacial period that man first appeared on earth, or at least it is in the strata of this age that we find the first unequivocal traces of his presence. The most eminent geologists consider that it was in the inter-glacial or the immediately post-glacial period, which was at or near the close of the tertiary period, that man first appeared. The traces of man are found in all four continents, but not on the oceanic island. Just anterior to the glacial epoch a continental area connected what are now the territories of the British Isles, France, the Iberian peninsula, Italy and Morocco into one region. The climate was warm and moist, the flora and fauna were tropical in character, and the fossil remains of taller and stronger man-like apes than any now in existence, as well as fragments of the human skeleton, the most ancient yet brought to light, have been exhumed near Madrid, in the valleys of the Pyrenees, and elsewhere in France, in Tuscany and other localities in the Italian peninsula. It seems probable, therefore, that man originated somewhere in this former European continent which, as you have seen, differed very widely from modern Europe in size, outline and climatic conditions.

Respecting *the origin of man*, I accept the teachings of the bible and explain his presence by a special creation by the direct will of God. There are many very able scientists who consider with Darwin, not that man descended from the monkey or one of the apes, for Darwin never believed or said that, but that, by evolution under known laws, man is the descendant, with other species, of some ancient, lower and extinct form.

Respecting the *influence of physical surroundings*, we have seen the wonderful adaptability of the species to any and all climates and physical environments, and that man is stronger than his surroundings, and that climate does not impair physical vigor or mental vigor after he is acclimated by a few generations. Neither does climate affect the duration of life or the power of reproduction of the human race. Neither does the influence of physical surroundings affect height, strength or weight of the human race. The effects of elevation are more marked than those of climate, producing long bodies, broad shoulders, deep and high chest walls and disproportionately short legs, owing to the rarity of the atmosphere requiring a greater expansion of the breast to admit the proper amount of oxygen to the blood, and the unusual development of the thorax leads to corresponding changes elsewhere.

Respecting *the limits of variation in the species*, we have seen that these variations are not characteristics of races or sub-species, but rather of tribes and localities. Heights, weights, and muscular power can be developed within the limits of any race by favorable surroundings. Puberty appears in the tropics about three years earlier than in high northern latitudes.

Respecting completed growths, longevity, tolerance of disease and fertility of marriage no great material differences exist between different races.

Respecting *the primitive condition of man*, we have either to accept the statement of the bible, that God created man in his own image, or else we have to accept the assumption which "regards early man as a savage lower than the lowest known to us, a brute without speech, without ambition, without religion; entirely dependent on his natural surroundings and the slave of his appetites and lusts. With no family life, without the sense of shame, nor the appreciation of the beautiful. Less cleanly than many beasts, far less warm and fixed in his affections than many, he was content with his condition and felt no inborn longing for anything higher, anything better." To our minds there does not seem to be anything incompatible with the teachings of the bible in accepting the scriptural account of the creation, and of the primitive condition of man, and at the same time granting that the story of nations is everywhere one of improvement, beginning with arts, which are rudimentary, and an imperfect social condition.

Respecting the *argument from history*, which is that the records of every nation carry it back to a period of barbarism, we must remember that in order to reach the conclusion that the primitive condition of man was removed but one step above that of an intelligent brute, we must continue this universal statement by the method of analogy to reach a condition of culture indefinitely low, as that of the earliest prehistoric society.

With respect to the *arguments from archaeology*, we can only say that the researches of the archaeologists have only reached a point where a rough stone and a club seem to have been the highest expressions of human art. To say that because the relics of the cave men in the caverns of Belgium prove that they lacked the neatness of animals, as they allowed the remains of their repasts to lie where they fell, not even cleaning the holes that served them as dwellings, and that customs of marriage and descent in the oldest and rudest tribes were at first very loose, only proves that this is as far as archaeologists' investigations have proceeded and that this argument is only an inference.

With respect to the *argument from language*, which points back to a period when human speech was a series of cries of an interjectional nature, we can only say that this is an assumption of original speech at an epoch far beyond the remotest horizon of history, as is also the assumption which casts doubt on any power of articulate speech in the early ancesters of man which is derived from the *evidence of two very ancient jaws*, found one in the cave of La Naulette, Belgium, the other in the Schipka cave, Moravia, seeming to show that in these two jaws there was such a marked deficiency in the muscular attachment of the tongue that articulate speech could scarcely have been possible to the creature who had such an inferior maxilla.

With respect to the *argument from the tendency of man to retrogression*, that his natural condition was an exceedingly low one, we can only say that this is an inference only and not susceptible of proof. The argument from the osseous remains of man which is that the oldest bony remains of man indicate an inferiority to the present race, is supported principally of the evidence of two skulls and a lower jaw: the Neanderthal skull, which was found in a cavern near Dusseldorf in 1856, associated with bones of extinct species and parts of a human skeleton. There is no forehead to this skull, the superciliary ridges are excessively developed, the bones are thick and heavy, the head elliptical, the sutures are nearly all consolidated, and the occipital region very protuberant. The second skull is from Eigis, Belgium, and is thought to be of later date than that from the Neanderthal cave. It is also marked oblong with prominent superciliary ridges and prolonged and rather flattened occiput. It undoubtedly belonged to a low type of humanity. The jaw of La Naulette was also discovered in Belgium, in the cave called "La Trou de la Naulette," near Dinant. It is part of a solid and heavy lower jaw, retreating like that of an ape. It was associated with remains of the elephant and rhinoceros and belonged, it is thought, therefore, to a very ancient type of man. The molar teeth, instead of diminishing as they proceed toward the angle of the jaw, as in man, increase in size. At the median line of the internal curve of the bone, where in man there is a small protuberance serving for the attachment of the muscle of the tongue, the genioglossus, there is, instead of this protuberance, an actual depression, as in the monkeys. This has been held to indicate that the power of this jaw could not articulate any known form of human speech, and DE MORTILLET has pronounced this human (?) bone "the most ape-like that ever has been discovered." You must bear in mind that these are supposed to be the remains of tertiary man. Now, in 1888 I received a letter from that very able scientist, the MARQUIS DE NADAILLAC, in which he writes as follows: "My conclusions on *tertiary man* are that till yet no proofs of his existence exist. These conclusions are now admitted by the great majority of scientists in Paris." You will see by this, that scientists are not yet in accord as to when man made his first appearance on earth. About the middle of the quaternary epoch there appeared in western and central Europe a very perfect and interesting race, the Cromagnon, which is now represented by a score of crania and some almost complete skeletons. It is not probable that they were the first race, being preceded by the Cannstadt race of an inferior type, but the point I wish to make is, that their type was a very high one, being equal to the modern Parisian. It approaches the Caucasian, although the teeth project somewhat, and the cheek bones are high. The forehead was high and straight, the vertical diameter well developed, the cranial arch elongated, the lower teeth vertical, and the chin well developed. The whole anatomical structure shows a highly intellectual race, which is further established by their artistic remains such as the representations of mammoths and other animals which were skillfully drawn in outline upon their bone weapons and implements. They lived in France and Belgium in the second half of the quaternary epoch, being contemporary with the reindeer. They were succeeded again by a very inferior race, the Furfoos, who appeared in Belgium at the end of the reindeer age. The weapons, the implements and their arts were of a much ruder type than those of the preceding race. They had a low, narrow and retreating forehead, and were of a small stature. Now, this La Naulette jaw, of which I have spoken, may have belonged to an individual of the Connstadt race who existed in western and central Europe, as far as is known, from the beginning to about the middle of the quaternary epoch. This race had a retreating forehead, a small cranial capacity, prominent teeth and jaws of great size, and an absence of chin. Now, here we find three very early races, all we know of them being gathered from their fossil remains, discovered respectively in Cannstadt in Germany, Cromagnon in France, and Furfoos in Belgium, all supposed to belong to the quaternary epoch, which designates the period intervening between the close of the tertiary and the beginning of the geologic age in which we live, this being known as the alluvial or actual age. A very low race, a very high race, comparatively speaking, and again a very low race, with apparently no racial connection. Where did the high race, the Cromagnons, come from? Who were their ancestors? From whom did they inherit their fine crania? We do not know any more than we know where the other two races came from. We cannot even fix upon them with accuracy and say positively that they were the first types of created man. I deem it utterly impossible to fix with accuracy the date of man's first appearance on earth. Fossil remains may yet be discovered somewhere that will give rise to new theories and conjectures on this point.

I think I have said enough to show that science, as far as she has progressed, and no one has greater respect for her or will follow with more alacrity in her footsteps than myself, does not lead us to reject the bible, but rather to accept its teachings when it is read intelligently. **Bacon** said: "A little philosophy inclineth man's mind to atheism, but depth in philosophy bringeth men's minds about to religion." **Shakespeare** says: "Let all the ends thou aimest at be thy country's, thy God's, and truths." **Phillips Brooks** said that "the symmetry of life consists in an intense ambition, a broad humanity, and a love and obedience of God." **Daniel Webster** said: "The bible is a book of faith, and book of doctrine, and a book of morals, and book of religion of especial revelation from God."

Respecting *the sub-species or races of men*, we have seen that the antiquity of races is great, that the differences between the races are very numerous, and that there are several different races. That in the classification of races different writers have subdivided the human species differently, by location, by the skin, by the hair, by the skull, by language, and by social organizations. The Linnean system or the geographical system which divides the races into six, the European, the Asiatic, the African, the American, the Australian, and the Oceanic, is very near to that by the skin, which, used in early Egyptian, Hebrew and Greek literature, was adopted by **Blumenbach** for his classification, which is the most popular, dividing man in five races: the white or Caucasian race, the yellow or Mongolian race, the black or Ethiopian race, the red or American race, and the brown or Malayan race, including the Polynesians.

Respecting the *present relations of the races*, we have seen that during the historic period there has been a tendency to the obliteration of race distinctions by the origination of mixed races, and that probably the pure stock of all the Negroes, the Australians, the Papuas, and the American Indian will probably fade out in a few centuries.

## ETHNOLOGY.

The lectures on ethnology have sought for the conditions which give rise to the customs, laws, and habits of nations, the influence they exert on the destiny of commonwealths, and the principles of life which they illustrate. The first two elements for examination in ethnic conditions were *the food supply and the sexual relation.*

Respecting the food supply we saw the *influence of quality of food.* That the structure of the teeth does not authorize the statements that either vegetable or animal food was ever man's exclusive diet. That climate and facility of acquisition usually determine his food supply. That the majority of men eat what is obtained at least cost of labor and money. We see conspicuous bodily vigor in the Indian of the plains living on unsalted meat, in the Polynesian who used to live for eight months in the year on bread fruit, in the Central American natives who used to eat hardly anything but maize, and in the Scotch peasant who in old times ate hardly anything but oatmeal. These all exhibited physical well-being nourished by almost a single article of diet in each case.

Respecting the influence of *quantity of food*, an abundant supply of food is necessary to the fullest development of physical and mental power. Under-nourishment of a nation means that nation's physical and mental decay, from a want of muscular strength and endurance, and a want of intellectual clearness and grasp. The Australians, in the east of that continent, when they are well fed, owing to well stocked hunting grounds, are a much superior type to those who are half starved in the brush of the west coast. We find the same thing in Africa, where those of the same stock who have lived for generations in unproductive wilds, are stunted and inferior representatives of the human race, while others of the same stock who have lived in the fertile regions are quite up to the average stature, well proportioned and not deficient in intelligence. We have seen that all communities obtain their food either *from natural products*, *from cultivated products*, or *by exchange and commerce*, or by a combination of these methods. The earlier and more primitive tribes of men have always contented themselves with a food supply directly from nature's hand, and this has been the guiding principle in all their migrations. They have gone where their wants could be most easily supplied. Only when those regions abounding in fruits, game or fish were forcibly closed to them by a stronger tribe, have they ever contented themselves with the poor nourishment of the desert. This is the history of all desert tribes. Man's hunting weapons soon progressed from a stone and a club, to a spear and bow and arrow long before the dawn of history. The sling for stones, and blowpipe for propelling poisoned darts, were also used. Traps and calls were also used as aids in hunting. Nets, weirs, and drawn wire were used in securing fish, and fishhooks made from the claws of a bird or the crooked bone of a fish. The lake dweller of Switzerland and the ancient Egyptians used a bronze fishhook which was barbed. Cannabalism also prevailed in many nations, as among the ancestors of the nations of Europe, the Caribs, the Africans, the Malays, the Aztecs, the Maoris of New Zealand, and Dyaks of Borneo. The food supply *from cultivated products*, we have seen, comes from the pursuit of agriculture or from the breeding of domestic animals, and it has been claimed that the history of the progress of mankind can be distinctly traced by the extension of the areas of cultivated plants. With regard to *the age and distribution of food plants*, it is claimed by the Chinese that rice was extensively cultivated by them two thousand eight hundred years before the Christian era. Barley was known familiarly to the Egyptians before the earliest recorded dynasties. Rye was sowed and reaped during the earliest part of the bronze age in Europe. These grains must have been cultivated food plants long before the earliest of these dates, as many of them had been developed to a high state, and had been carried long distances from their native homes. The agricultural arts have, therefore, a great antiquity, and it is rare to learn of any tribe wholly without some cultivated plant. The hunting tribes of America had their maize, beans and pumpkins. Agriculture, of course, develops agricultural arts, and the crooked branch of a tree was probably the first plow. Among the relics of the stone age we find corn crushers, stone mortars for grinding the corn to meal, and other implements, while the sickle, flail, and corn meal were soon invented. With regard to the domesticated animals, the flocks and herds were of paramount importance to early man, and in Egypt and India the cow was deemed divine. The gods were likened to them, and they constituted the principal form of riches. Cattle, horses, dogs, goats, and sheep were domesticated in Europe at a period far beyond that of history. In the remote quaternary epoch in France the remains of horses are very numerous. The kitchen middens of Denmark disclose the remains of no domestic animals but dogs. The relics of the Swiss lake dwellers contain bones of all the other species of animals named.

The influence of agriculture on the national life was to promote a settled disposition, the permanence of houses, habits of regulated labor and foresight, and the formation of habits of peace and government, and more leisure for higher intellectual cultivation. Land was measured and regulations made for its ownership and transmission. Slaves and hired labor soon replaced the necessity for every man and woman to labor in the fields. At first the tendency was to select only the most fertile spots for cultivation, but natives were not long in learning to fertilize and improve their lands, as the enormous works used for irrigation in very ancient times in the valleys of the Nile and Euphrates, and by the Incas of Peru, show most conclusively. The food supply by exchange and commerce was of very early date and food was raised, preserved, stored and transported and exchanged for metals, shells, stones, amber, and manufactured goods. The influence on social life by this method has been good by checking the old destructive famines, by the gathering of men in cities who are dependent on the distant agriculturist while they labor in manufactures or in their other vocations of life, science, letters, or art, while steam and sail transports them their food from the whole world, and their navies and armies protect their national existence by maintaining peace by a due preparation for war, while in this glorious republic of America, the United States, the protective principle and reciprocity have brought us into the proud position of the leading nation of the world, while agriculture and manufactures go, as they should go, hand in hand, and religion, learning, liberty, and law are the four great conservative forces of our national life. The hundreds of colleges now in existence in our country had their origin in the religious sentiment of the country and a study of civilization will show conclusively that religion excites the desire for education, and that popular education derives its main stimulus from religion, and in those parts of our own country and in other countries which have enjoyed the earliest and most permanent influence of the Christian religion, have arisen more educated and eminent men than in any other parts. All history shows that religion has always had an awakening and stimulating influence upon the intellectual power. At the top of natural law we find God. The great paintings and sculptures, and the colossal architecture of the world have had their origin in religious sentiment. Religion generally, in the history of culture and civilization, will be found to have awakened the mind and led to education.

With regard to *stimulants and narcotics*, we have seen that everywhere man seeks some stimulants to act directly on his brain and nervous system, and the lives of millions of the highest races have exhibited their disastrous effects. Although alcoholic drinks have been prohibited by Brahmanism, Buddhism, and Mohammedanism, we find these people giving themselves up to an undue indulgence in hasheesh, opium and tea, while the unlimited use of tobacco for three hundred years has deteriorated the nervous systems, aggressive power and vital energy of the nations most addicted to it, as the Spanish-Americans and the Hollanders. A study of the physiological action of alcohol upon man and his offspring shows that the effects of intemperance on the race is terribly disastrous, and I do not believe that any form of alcoholic beverage by stimulating the brain power can assist the forces of modern civilization, or that alcohol can confer upon man or his offspring permanently, an artificial working power above their normal state. The use of it creates a new physiological want, a systemic demand which becomes in many preëmptory and irresistible, resulting in the disease of inebriety. A study of the effects of alcohol upon man and his offspring proves conclusively that it injures the body and brain, impairs normal cerebration, injures the structure of the brain and impairs functional action, induces altered conduct and loss of ability, lower intelligence and morals, and affects all thought and conscious action. It kills out high intellectual ability by incapacitating the organ of thought. It confuses the finer operations of the brain and mind. It paralyzes the will, dims the intellect and lowers the moral sense. It injures not only the physical, moral and intellectual health of the person himself, but also that of his offspring in whom its effects may be traced in idiocy, imbecility or other grave nervous defect. Alcohol is not a food, and it diminishes the power of endurance and depresses the vital force of those who use it habitually. Students work better without it. Armies sustain heat and cold better, and fight better without it. There is an absence of any real benefit from the habitual daily use of either fermented or distilled liquors, and tremendous danger of the formation of the alcohol habit.

In the matter of food, we find that all tribes of men have used fire in the preparation of it. All remains of all periods show fire-cracked flints and charcoal from primitive hearths. It was used to give light and to cook food as its chief purpose. Roasting over the fire and burning in hot ashes are the simplest and probably the earliest forms of cookery, while later on vessels were chipped out of soft stônes.

Respecting the *sexual relation*, we have seen that as to *the origin of sex*, SPENCER and DARWIN have suggested that the vitality of a species is strengthened by the crossing of blood, and that it is doubtless a part of that general specialization of function which we witness in tracing the evolution of organic forms everywhere.

Respecting the primitive relation of the sexes I consider that they were doubtless either monogamous or polygamous, probably the former, never one of promiscuity in the primitive condition of the human species. The Veddahs of Ceylon are an example of a strictly monogamous tribe among the ruder races of mankind. The same has been said of the Seminole Indian. Polygamy seems to have been very usual. Polyandry quite rare. Monogamy was the law among the ancient Romans. Its diffusion over the world is due to Christianity. In the early church a canonical law dating from 400 A. D. pronounced a marriage indissoluble. This is still the doctrine of the Roman Catholic church.

Respecting *the forms of marriage*, in primitive society, women were sometimes stolen, for wives, or purchased, as in the case of the Circassian girls, who were sold by their families to the Persians and Turks, and in various patriarchal tribes where the father disposed of his daughter to the highest bidder. This is also so to some extent among American tribes, although in most instances the articles of value paid to the parents are not considered so much a price for the girl as a pledge that the aspirant for her hand is a good warrior and hunter, and as a proof that the suiter's affection is strong. Among the Shawnees, Osages, and Creeks of the American tribes the girl made her own selection of a husband without consulting her family. She bargained for the gifts she was to receive, and rejected all suiters that did not please her. Frequently it was a matter to be arranged between the elders, as it is in Europe. Among the Aztecs there was a special clan who made the matches. Among the Iroquois the old women selected the wives for the young men and married them to women several years their seniors. The highest form of marriage is that, of course, based upon mutual affection, personal acquaintance, and mutual sympathies and tastes.

> "She is mine own,
> And I as rich in having such a jewel
> As twenty seas, if all their sand were pearl,
> The water nectar, and the rocks pure gold."

Respecting *the limitations of marriage*, the "virgins of the Sun" in Yucatan, the vestal virgins of ancient Rome, the Buddhist priesthood in Central Asia and Thibet and the nuns and priests of the Roman Catholic church have always been under vows of chastity and continence, and marriage prohibited. There have also been restrictions through kinship.

Respecting *the effects on population*, premature marriage tends to limit the size of families and reacts injuriously on the race. Early marriages also tend to the lowering of the vigor of mind and body, and the most warlike tribe of the North American Indians, the Iroquois, required their braves to remain single and chaste up to the age of thirty years. The edicts of the Incas of Peru prescribed twenty-four as the proper age at which a man should contract marriage. Early marriage also depreciates the mental culture of a community by shortening the time which can be devoted to education, the cares and support of a family being thrown upon parents who are too young to assume such responsibilities.

Respecting *the laws of descent*, the white race have from the earliest historic times traced relationship principally through the father's line. His name is borne and property descended through him. In Spain, where the mother as well as the father transmits her family name to the children, the name of the father has the preëminence. Among the Lycians, descent was traced through the mother's line only, but this is comparatively rare, although it has prevailed among the Australians, Americans, and Malayans.

Respecting *the social position of women*, the matriarchal system in savage tribes vests property rights in her and the possessions acquired by her husband are more hers than his. Among the Osage Indians of the western plains, the oldest daughter, on her marriage, came into possession of all the family property. Among the Indian tribes the women exert a great influence over the warriors, and shape and control the public feeling and opinion of the camp. Among all the tribes of the Iroquois Indians in America and among the Tartar tribes of

Asia, the women took part in the councils, advised openly on matters of public warfare, and often decided the question of peace or war, and had a deciding voice in the election of chiefs. Females have frequently been found to be the chief rulers of savage tribes, while the records of ancient monarchies transmit to us the memory of Queen Semiramis, of Assyria, who built Babylon with its lofty walls, Cleopatra, Zenobia, aud the Queen of Sheba. Female chiefs have been frequent in Africa, and also in the historic records of some American tribes, such as the Caribs and the Natchez. Also the Aztecs.

Respecting *language*, we have seen that it is a very important motive power in the development of society, and that it includes, in its general sense, all means by which emotions are evoked and ideas communicated, either by signs or speech. That in its broadest meaning language is not confined to man but that many of the lower animals possess some means of communication with each other which even naturalists are at a loss to explain. *Gesture, or sign language*, is doubtless used by animals to communicate with each other. The deaf-mutes also have recourse to it. The Neapolitans and Sicilians, though possessing rich and varied dialects, constantly resort to gesture to give their words emphasis and carry on conversation without the use of words. The North American Indians have a sign language of great antiquity, and known over a wide area. Gesture language has very little to do with a poverty of vocabulary, as seen in the Neapolitans and the Shoshones of the western plains, both of whom have a good vocabulary, and who yet delight to speak by gesture.

Respecting *inarticulate speech*, the spontaneous expressions of the emotions are generally inarticulate. They are not words but sounds. The Comanche dance song and the Iroquois war song are merely syllables with no meaning and are used simply to excite and keep up an emotional state. Baby talk, familiar to all mothers of very young children, whether it be the dusky Iroquois or the young mother in a brown-stone city mansion, approaches this inarticulate condition.

Respecting *articulate speech*, the language of a nation has a great influence on its thinking powers, and through these on all its capacities and fate.

Respecting the study of the languages of the different races we may say, as a general rule, that where the grammatical structure, the speech sounds and the lexical identity agree in the language of two or several peoples, their relationship may be considered as proved, except where it can be proved that a people have lost their own language, and changed it for another, which is very rare. The grammatical structure of languages is considered to be much more permanent than the form of speech, and we have seen that all the languages of the world have been classified in four divisions. First, *isolating languages*, the characteristics of which are that words are simply arranged in the sentence in juxtaposition without change of form or grammatical connection. These are spoken by the Chinese, Siamese, and Burmese. Second, *inflecting languages*, the characteristics of which are that each sound indicates by its own form its character and relation to the proposition of the idea which it represents. These are spoken by the Aryan nations, the purest types being the Sanskrit, Greek, Latin, and Gothic. Third, the *agglutinative languages*, the characteristics being that the sentence is formed by suffixing to the word various terminations modifying and limiting it. These are spoken by the Finns, Turks, and many Northern Asiatic tribes.

Fourth, *incorporating languages*, the characteristics of which are that the leading word is either divided and the modifying terms inserted, or they are united to it as prefixes and suffixes, so that the whole sentence assumes the form and sound of one word. These are spoken by most of the American tribes. These great divisions are, in a general way, peculiar to certain races, but they are not absolutely so, and it is less so with single stocks of languages, as both the Semitic and Aryan peoples belong to the pure white race, but their languages are totally diverse. Such races are called "polyglottic," while those who speak dialects of the same tongue are "monoglottic." The Malay race belongs peculiarly to the latter class, as all its members from Madagascar to Easter Island make use of dialects which come from the same stock. This is also the case with the Caffir tribes of South Africa, and it is said to be true of the Australians. Changes in language are due chiefly to war and migration. A nation which loses its native tongue also will lose its national unity. The Normans who conquered France had in one or two generations lost their language and their independent nationality. The Jews and Gipsies have always, on the contrary, maintained the Hebrew and the Romany tongues. The only way to explain absolutely dissimilar linguistic stocks occurring in the same race, as the Aryan, Semitic, and Basque in the white race, is, that the race had definitely obtained and fixed its racial characteristics before it had a language at all—before it had emerged from its most primitive condition. When the racial characteristics had become fixed and the race had separated into several branches, living remote from each other, then these branches are supposed to have severally developed their modes of speech and on dissimilar principles of construction. The number, therefore, of distinct linguistic stocks spoken within the limits of a race is in proportion to the antiquity of that race, as it is readily seen that its bands were numerous at that remote epoch, when human speech was in its primitive stage. Hence an extremely polyglottic, like the American, would be much more ancient than a monoglottic race like the Malayan. In these two instances the reasoning is borne out by geologic and historic evidence. That nation will probably reach the highest level of culture whose language includes conceptions which are essential to higher flights of the intellectual faculties, and it might, therefore, be well for some nations not to preserve their native tongue unchanged. To advance the mental development of a race may be better than to preserve their national unity at the expense of being incapacitated from reaching the higher levels of culture. The English has, to-day, those characteristics which make it correspond most precisely in its expression with the logical process of thought, and it thus favors clear and progressive thinking and prompt comprehension, and for these reasons it may yet become the language of the civilized world. The Chinese language is four thousand years old, and the people uninfluenced by external influences and hampered by the limits of an inexpressive language which has never been vivified by an admixture of foreign elements, sank into a state of mental torpidity. The first approach toward an alphabet was first achieved in ancient Egypt, but the ancient Coptic was a language of inflection and far more progressive than the Chinese. The ancient Mexicans not only had pictures expressing certain syllables, but some defining particular letters, and they combined them to spell words. The ancient Semitic nations, especially those of Babylonia and Phenicia, modified the Egyptian writing to suit their needs and rejected its vowel elements. The Greco-Italic nations receiving the Semitic alphabet by way of Phoenicia and the trading ports of Tyre and Sidon, supplied it at an earlier date than history records, with the vowels which it lacked in order to render it a proper exponent of vocal expression. The vowel elements were placed, not as inferior but as equal to the consonants, and inserted in the order in which they are heard by the ear. This was necessary from the inflectional structure and polysyllabic character of their languages, and it shows the influence which the diversity of linguistic structure has on the development of the intellectual nature of man.

Respecting poetry and prose, every nation has its songs, its poetry, and its prose, which act on their emotional and their intellectual nature.

Thus far has the academy progressed in its work for 1892–3, and it will be seen from the survey I have given of it how full of interest and scientific work the lectures have been. In every instance the lecturers have been men of ability who have devoted much thought and study to the preparation of the topics assigned to them, and I think we shall all agree in considering this one of the most interesting years of academy work.

We come next, to the fourth determinative element in ethnology, namely, *technology or the arts*, which rather than have the consecutive work of the academy disturbed, I undertook on very short notice to speak upon, paying especial attention to the asthetic arts of sculpture and modeling, and more directly of Greek and Roman sculpture.

We come now to the fifth determinative element in ethnology, namely, *government and laws.* The marvelous growth and unique history of our republic has been due to highly complex and manifold motive-forces. Primarily, we had the advantage of good "determinative elements" to help us in our growth. We had *an abundant food supply,* which is essential to the fullest development of the human powers, physical and mental. We therefore had from the start that muscular strength and endurance, that intellectual clearness and grasp essential to the growth of any nation that is to achieve greatness. National culture at once took a long stride in advance, for unlike some other nations we had the advantage of obtaining our food almost immediately, from natural products, from cultivated products, and by exchange and commerce. The influence of agriculture from the commencement of our history was most profound and beneficient, as it promoted a settled disposition, the permanence of houses, the habits of regulated labor and foresight, and the preference of peace to war, government to anarchy. It allowed the congregation of large communities and ensured the leisure which was necessary to higher intellectual cultivation. From the inception of history also we had home purchasers prepared with desirable objects to offer in exchange for food, and manufactures enabled them to obtain food by exchange and commerce. This great influence on the social life of the nation we enjoyed almost from our earliest history, and it at once permitted men to gather together in great cities where all are dependent on the distant agriculturist for their daily bread, and the impetus given to the growth of our cities to-day is directly attributable to the successful application of steam to the transportation of food.

We had also the second great "determinative element" in the growth and history of nations, *the highest form of marriage or sexual relation*, in that we had an enlightened Christian community who increased the happiness of individuals and developed the noblest qualities of the race by marriage, based on personal acquaintance and intelligent affection, with woman in a desirably high social position.

We had also a *language* of true superiority; a language which in its characteristics corresponds most precisely in its expressions with the logical processes of thought, and which thus formed clear and progressive thinking and prompt comprehension; a language which has acted on the national mind as a stimulus and an incentive to intellectual pursuits—and a fine national poetry and prose which has reacted directly on the life of the nation.

We have had also one of the main forces of culture in this country in a well and rapidly developed *technology or the arts:* a domestic industry which has meant national power and individual support; arts both utilitarian, including tools and utensils, weapons, buildings, clothing, and media of exchange (money); and the esthetic arts or those designed to affect the senses in an agreeable manner and by associating the emotions and intellect. Such are decorative designs in line and color, sculpture and modeling, music and musical instruments, scents and flowers, and games and festivals, and the arts inspired by the religious sentiments which have given us our fine churches, cathedrals and colleges.

We have had also, as another great determinative element in our progress, *a government and laws* superior to any in the history of the world, a form of government which I believe is destined to be the model for all other countries of the world. A government founded on morality and religious sentiment. A government popular in its foundation and popular in its exercise. A government of high character, because the general moral and intellectual character of the community has been high; because there have been adequate rewards to labor and industry, a share in the public interest, a stake in the community on the part of well-employed and well-paid citizens who never could have been intelligent and virtuous and at the same time poor and idle. A great government; because it has shown that an educated, enlightened community of high character is capable of self-government, and that religious freedom and toleration does not necessarily produce indifference to religion. A government with a free press for the people, not a government press. A government that has by the power of its example and the general tone which it has inspired, assisted woman to a high influence on the morals and sentiments of the community in the training and instruction of the young; that has made the American mother the strongest bulwark of public liberty and the perpetuity of a free constitution. A safe government in which public faith is confidently reposed. A government with a strong protecting power in a high and pure judicial branch. A government, not a compact between states, but by the whole and for the whole people of the United States. A government whose first object was the preservation of our liberty, this being accomplished by maintaining constitutional restraints and just divisions of political power. A government with a constitution framed for union, and to "establish justice, insure domestic tranquility, provide for the common defence, and promote the general welfare," and "to secure the blessings of liberty" to us and our children. A constitution the bond of our union and the security of our liberties. A constitution made for our good and administered for our good, and if need be to be defended by us against all the powers of the world for our good.

We have had a sixth determinative element in our growth and history, namely, *religion*, and religious toleration, that has exercised a great influence on our nation and has moulded our community into what it is. Progress is the development of the energies and resources of a nation and the condition of civilization is where all these energies and resources are developed symmetrically and to a high degree, and we find both progress and civilization in their highest state where we find the acceptance of the Christian religion.

We have had the conditions and momenta of progress to assist us in rapidly becoming a great nation. We have had the growth of wants: racial and national endowments; geographical surroundings; the commingling with other nations, which has prevented us from becoming fossilized and our progress being checked, and the influence of great men, who have made their mark on the history of our republic; our WASHINGTON, JEFFERSON, HAMILTON, JOHN JAY, CLAY, WEBSTER, ADAMS, CHOATE, EVERETT, LINCOLN, GRANT, HORACE GREELEY, BEECHER, BLAINE, PHILLIPS BROOKS, and many others whose labors were effective because there was a readiness to respond in the national and racial mind at the time. Men whose work is their best eulogy, as it has resulted in making our republic a great example to other nations in the recognition of the equality of all men before the law, and the right of every people to govern itself under a republican form of government, in place of forms of monarchy and aristocracy; in proving that popular institutions founded on equality and the principle of representation are capable of maintaining governments, able to secure the rights of persons, property and of reputation; and in giving to us a free representative government, entire religious liberty, improved system of national intercourse, an unconquerable spirit of free inquiry, a diffusion of knowledge throughout the land which is unique in the history of nations, and last, but not least, a judiciary, the spotless ermine of whose judicial robes has never been soiled by entertaining opinions hostile to the just powers of the Constitution of the United States of America.

The present would seem to be a peculiarly fitting time to remember that the people are the source of all political power; that government is instituted for their good; that the members of the government are their agents and servants; that the power is with the people, and that they exercise it through their representatives; that the basis of representation is suffrage, and that suffrage is the delegation of the power of an individual to some agent; that one of the great principles of an American system of government is that the right of suffrage shall be guarded, protected and secured against force and against fraud, and second, that its exercise shall be prescribed by previous law; its qualifications shall be prescribed by previous law; the time and place of its exercise shall be prescribed by previous law; the manner of its exercise, under whose supervision (always some officer of the law) is to be prescribed; and that the results are to be certified to the central power by some certain rule, by some known public officers in some clear and definite form, to the end that every man entitled to vote may vote, and second, that his vote may be sent forward and counted, that he may exercise his part of power in common with his fellow-citizens.

## PARTY SPIRIT.

Party is the madness of many for the gain of the few. It is time to check party spirit in a republic like ours when it carries men so far that they cease to inquire into men and measures that are placed before them for their sanction and support, but only inquire to what party the men belong or what party recommends the measures. It is the sacred duty of every American citizen to exercise his judgment and his privilege at each election in such a manner as to perpetuate the principles of an American government which are liberty and equality, established law and order, security for public liberty and private rights, a general system of education liberally diffused, the free exercise of every religious creed and opinion, and brotherly love and harmony. Every man in the commonwealth has an interest in the principles which reward labor, the principles which will elevate him in society, and make him well employed so that he can buy and consume and have a happy and cheerful home, and these are the principles which I have avowed in my address this evening, and I hope with clearness, with force, and earnestness. I close with a quotation from WASHINGTON's farewell address in which he spoke of the dangers of the spirit of party.

"The common and continual mischief of the spirit of party are sufficient to make it the interest and the duty of a wise people to discourage and restrain it. It serves always to distract the public counsel and enfeeble the public administration. It agitates the community with ill-founded jealousies and false alarms, kindles the animosity of one part against another, foments occasionally riot and insurrection. It opens the door to foreign influence and corruption, which find a facilitated access to the government itself through the channels of party passions. Thus the policy and will of one country are subjected to the policy and will of another. There is an opinion that parties in free countries are useful checks upon the administration of the government and serve to keep alive the spirit of liberty. This within certain limits is probably true—and in governments of a monarchial cast, patriotism may look with indulgence, if not with frown, upon the spirit of party. But in those of the popular character, in governments purely elective, it is a spirit not to be encouraged. From their neutral tendency it is certain there will always be enough of that spirit for every salutary purpose, and there being constant danger of excess, the effort ought to be by force of public opinion, to mitigate and assuage it. A fire not to be quenched, it demands a uniform vigilance to prevent its bursting into a flame, lest instead of warming it should consume."

Whoever loves the prosperity, the liberty, the free institutions, and the renown of any country will forever love the name of WASHINGTON, who in his wisdom, his virtue, his patriotism and his discretion, rejected all partisanship, and never gave up to party what was meant for the universal good of his whole country. Let us never forget, therefore, the admonition of him whose name we venerate against an excessive party spirit acting either on or in the government of the United States which cannot fail to injure the political prosperity of any country if it is indulged in, and might even threaten our constitutional American liberty. May the day never dawn in this republic when citizens of the United States shall cease to revere the precepts and example of WASHINGTON, or when the sun shining on the Capitol at Washington shall behold government become nothing but organized party. Rather, may we see the spirit of WASHINGTON ever guide those in authority and forever preside over the national councils.

# URETHRAL STRICTURE—CAUSE AND TREATMENT.*

By FREDERICK W. ROBBINS, M. D., Detroit, Michigan,

ASSISTANT PROFESSOR OF GENITO-URINARY DISEASES IN THE DETROIT COLLEGE OF MEDICINE.

When the surgical mind is so much interested in the work of abdominal surgery in its various branches; when the progress really made in this department is such as to startle us by its magnificent proportions, there is danger that other important fields of labor will be left uncultivated, and well developed principles allowed to fall on the barren soil of routine, or, choked by the luxuriant growths around them, fail of their full fruition.

As the clergy from time to time attempt to stimulate the moral sense of the community when they see it dulled, so we try to stimulate one another and the profession at large, concerning matters which have impressed themselves upon our minds as in need of such quickening. Both in private and dispensary practice, nearly every day I see cases of chronic urethritis and stricture. Very recently a patient came under my care who gave a history of several attacks of urethritis, and within a year had been under the care of at least three reputable physicians, every one of whom had prescribed an injection for the discharge. Gleet is the meaningless term by which some designate it, and no one had taken the pains to examine and find a stricture one inch and another about four inches from the meatus, through which a number sixteen French sound would hardly pass.

A little later another patient applied for treatment for a urethritis which had lasted for months, and yet the physician who treated this man did not even suggest the necessity of dividing the meatus, congenitally narrowed, allowing the passage of a number twelve French sound. If such meatus had been opened freely, a well-marked stricture would have been discovered about three inches down.

These cases are only types of many that we see, and while not able to understand how a physician can so far obtund his conscience as to feel content to allow an unfortunate sufferer to contract and carry a gradually narrowing source of danger to life without attempting his betterment in some reasonable manner, I check my temptation to criticism and ask what is the nature of stricture, how is it produced, and is it not preventable or curable?

There are a few rare cases where the congenital narrowing of the meatus is sufficiently small to be called strictured. We do not believe that strictures exist to any extent as a result of masturbation or any cause except traumatism and chronic inflammation, the latter presumably gonorrheal. We frequently have seen cases where the patient, though denying a previous gonorrhea, yet may have had a urethritis for a few months only, and has been said by physicians to have a stricture because a medium-sized sound, cylindrical or conicle, either is assed with difficulty and producing hemorrhage or not passed at all. We do ot consider this condition in any sense a stricture. The mucous membrane nd submucous tissues are inflamed, and as a result edematous, which inflamnation having subsided, the urethra recovers its normal distensibility, but we ave cured no stricture and the patient has been needlessly disturbed by the hought of possible permanent invalidism.

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* Read before the Michigan State Medical Society, at Lansing, May 3, 1894.

A true stricture is usually detected from one to ten years after an attack of urethritis, and consists of fibrous tissue with plastic material surrounding the urethra, and according to its extent and character is called a linear, annular or inodular stricture. Why this slow formation? The history of these cases shows that never since the attack of urethritis have they been entirely and permanently free from urethral irritation. In other words, a chronic urethritis has never been cured, and when we stop and realize the gravity of a stricture, we are constrained to ask why this patient has suffered so long from chronic urethritis. Many, and I believe most, of these cases are curable, and to discharge a patient without warning him of his danger so long as clap threads are seen in the urine is to my mind culpable neglect. Patients having had gonorrhea are often too lightly discharged from all professional care as soon as the discharge has ceased and the patient's linen no longer stained.

In a large number of the cases of chronic urethritis, the disease is localized in a few small spots where the epithelium has disappeared and to the eye granular areas are seen. In the past strong injections were spoken of, and by the laity are now, as the cause of stricture. Now, we hold that chronic inflammation, and not the acute cauterization by chemicals, is the primary cause of stricture. The theory advanced by DOCTOR REGINALD HARRISON, of London, and now quite largely accepted by genito-urinary surgeons is this: The mucous membrane of the urethra when bereft of epithelium is not protected against the infiltration of small amounts of urine, and the irritation of these minute quantities of urine is sufficient to bring about the deposit of a plastic material which changes into fibrous tissue to protect the tissues against the further encroachment or leakage of urine. He attempts to show that inodular strictures are in character much the same as the thickened tissue found around fistulous openings. This condition we naturally attribute to the action of urine on previously healthy structures, but HARRISON would further say that it is an effort on the part of nature to construct a barrier against urinary infiltration.

DOCTOR BRYSON, of Saint Louis, accepts this causal relation of urinary infiltration to stricture and makes the prognosis more hopeful when he shows that in a number of his cases where fistulæ were present, long inodular strictures of the urethra had gradually disappeared, leaving only a very narrow annular stricture in front of the fistulæ where the tissues were bathed with the urine; and when the urethra had been thoroughly opened and the fistulæ closed, the inflammatory tissue around the fistulæ gradually disappeared.

These observations are consistent with the changes observed in inflammatory deposits in other parts of the body, namely, the irritation being removed, there is a tendency on the part of nature to absorb the inflammatory or scar tissue. This principle has often been brought forward by surgeons in opposition to certain operations for radical cure of hernia depending upon the deposit of masses of scar tissue in the inguinal canal. By some authors the plastic exudate with subsequent formation of fibrous tissue surrounding the urethra is said to differ from similar products in other parts of the body, in that there is no tendency to absorption, but rather to increase of mass and contraction of that mass. Is this not a distinction without a difference? In other parts of the body after the cause of the inflammation has disappeared the tissues are continually relaxed and contracted by muscular action, and moreover, there is more or less massage from without the body, and under these influences the plastic exudate is absorbed, and even the fibrous tissue becomes atrophied. In the urethra, on the other hand, the fibrous tissue once formed, not being operated upon by the aforesaid processes, remains, and it is left to the surgeon, having faith in his procedures, to frequently cure his patient. If we do not accept the plausible urinary infiltration theory, we must consider stricture building the result of chronic urethral inflammation. This may be a general catarrhal inflammation affecting the submucous tissue, or it may be limited to a few more or less extensive spots where the epithelium is gone and in its place through the urethroscope can be seen granular patches bleeding at the slightest touch, and sometimes the small openings of the glands of Littre exuding pus and surrounded with a ring of inflamed tissue. Having in mind either theory, stricture building ceases when the mucous membrane and granular structures are no longer diseased.

As to the frequency of stricture there seems to be a great difference of opinion. One gentleman at Muskegon last year said to me that "there seemed to be a great deal of talk about stricture, but for his part he never found one." On the other hand, not long ago in a small town, a doctor performed internal urethrotomy two or three times in one week. Possibly these men were extremists, one radical, the other conservative; but nevertheless the fact remains that the diagnosis of stricture is not at all times easy. From symptoms we can only guess at the true condition; *ordinary sounds* pass through, as they dilate soft strictures. The bulbous sound is the *only* means by which we can diagnose stricture of large caliber, and the anatomy of the urethra is such that an OTIS can always find a stricture where SIR HENRY THOMPSON would be very doubtful as to its presence. OTIS finds only fourteen of two hundred and fifty-eight strictures in the bulbo-membraneous region, while THOMPSON places sixty-seven per cent. in this region; sixteen per cent. in from one inch anterior to the bulb to two and one-half inches of meatus, and seventeen per cent. within two and one-half inches of meatus. What is the reason for this great discrepancy—one finding sixty-seven per cent. of all strictures at the bulbo-membraneous junction and another only a little over five per cent? To say that either of these authorities had been mistaken would be certainly presumptuous in me, but let me show how one of ordinary experience could be mistaken.

In the first place we may take it for granted that there is no stricture in the prostatic urethra; a possible tumor or calculus, however, in this region might be discerned by the bulbous sound. When we reach the membranous portion, three-fourths of an inch in length from the apex of the prostate to the bulb, and included between the two layers of the triangular ligament, the withdrawal of the bulb often meets with resistance, like that produced by an annular stricture, from the catching of the shoulder of the instrument under this ligament. Then, again, the muscular bands surrounding this portion of the urethra are very strong, and if there is any inflammation in this region, reflexly contract with such force upon the instrument that one is often led to believe that there must be a stricture here. Often with a number twenty-two or twenty-four bulb have I had this experience and then passed a number twenty-eight steel sound with perfect ease. From my own experience I am utterly unable to find anything like the sixty-seven per cent. of all strictures in this region, as does THOMPSON.

Again SIR HENRY THOMPSON, in examining the urethra ordinarily uses a sound not larger than a twenty-six or twenty-eight French, which will easily pass through strictures of large caliber and no stricture be discovered, and from this cause, as compared with the method of **Otis**, **Thompson** could find a much smaller number of strictures, and of the number found a much larger proportion in the deep urethra.

The points of physiological narrowing of the canal must be kept in mind while exploring the urethra. The meatus is often quite narrow. Just back of the meatus comes the fossa navicularis with an average size of about thirty-two French, with a narrowing back of this to perhaps twenty-seven French, which is about the size of the membranous urethra. The bulb will easily accommodate number thirty-two to thirty-six, gradually contracting anteriorly, until about an inch in front of the bulb a number twenty-eight to thirty will be none too small. This being the case it is easy with a bulb to mistake the contractions of an irritable urethra or these physiological points of narrowing for strictures, and especially is this so when from the gleety discharge we are predisposed to believe that a stricture is present. There can be no infallible rules laid down, but with all the possibilities of error in mind, the facility in the use of instruments which only comes with experience, will usually set us right in diagnosis.

The urethroscope will at times prove of great service in the diagnosis of strictures of large caliber, for even when the instrument passes in with ease the absence of the fine antero-posterior urethral folds and in their place a smooth whitened mucous membrane, as if a band was grasping the tube and driving the blood from the capillaries, tells us of the presence of stricture, and this is rendered more emphatic when just back of this smooth section the mucous membrane is inflamed, and perhaps eroded and easily bleeding. As to the use of the urethroscope, I think I can see the surface of the urethra about as well with simple reflected lamp-light as with any of the electric reflectors in the market.

The treatment of stricture differs widely, depending on the conditions present. Some would cut all narrowings at the meatus or post-navicular region whether the urethra is diseased or not; others, and they are many, I am sorry to say, fail to cut the meatus where it is necessary.

I think there is no excuse for a medical man who leaves a narrow meatus in a patient who has had urethritis upward of four months. The other day I saw a case in point of a man who has had gonorrhea for nearly a year into whose urethra could be barely passed a number eighteen French sound.

This means that treatment of some sort has been carried out and no accurate diagnosis made; a stricture very likely has been forming, the early treatment of which results in a probable cure. If chronic urethritis is present without other complications the meatus must be cut to full size and a sound passed for a few times, when cure usually results. So then I should say in all cases of chronic urethritis, or where stricture is suspected, any contraction, congenital or other, of the meatus or post-navicular region, should be cut to the full size of the canal. I have never seen any recontraction or any difficulty from inability to control the direction of the stream of urine. After the incision on the floor of the urethra the wound surfaces should be kept apart by pledgets of gauze and full-sized sounds passed every two or three days for a couple of weeks.

While strictures near the meatus would be probably treated as indicated were it not for carelessness or ignorance, men differ decidedly in their methods of handling strictures deeper down in the pendulous urethra. Following the teachings of **Otis**, for a time many surgeons did not hesitate to cut any stricture of the pendulous urethra, but after the lapse of some time we find nearly all writers holding a very conservative ground in this respect. **Otis** demonstrates the fibrous and elastic tissue most abundant on the floor of the urethra. **Brissond** and **Segund** find a dense fibrous triangular mass occupying about one-fifth the urethral circumference on its floor and an elastic strip in the roof.

The teachings of **Otis**, then, is in all cases to cut entirely through the fibrous and elastic strictures in the roof, that these bands will then contract and the incision be filled up by cicatricial tissue, leaving the urethral canal larger than before. In these cases, however, it is directed that a sound must be passed at first every three or four days, then at longer intervals, until finally the sound may be dispensed with entirely in some cases. By some the statement is made, "once a stricture always a stricture," but **Taylor**, **Keyes**, **Bryson**, and others believe that many cases are cured permanently by intermittent dilatation, and from some cases where I have passed large sounds with ease a year after all treatment ceased, I am led to believe that many cases are permanently cured. I have mentioned treatment by dilatation. Let us look for a moment at its rationale.

**Bryson**, of Saint Louis, calls this method inflammatory atrophic dilatation. Another, after remarking that it is not necessary to use a sound large enough to enter the stricture with difficulty, speaks of the mechanical effect of stretching as first, sedation; secondly, congestion, and finally, absorption. Patients frequently speak of the comfort experienced immediately after the sound has been passed (sedation). Nearly always for a day or two after passing a sound an increase in the amount of discharge is noticed (congestion); and finally, the caliber of the urethra is, as a rule, markedly increased after successive treatment. Having in mind this rational explanation of the effect produced by the use of steel sounds, we may have a more firm faith that the cure of strictures, especially when due to a general peri-urethral exudate of not too long standing may be permanent; also that the sound should not be passed oftener than once in from five to eight days, or not until congestion has subsided, and the process of absorption about come to a standstill. In most cases after an internal urethrotomy we are very particular to direct the use of a sound, and to my mind it is to this latter procedure that we can trace our cures. Recently a very narrow stricture came under my care where a few months ago a good surgeon had done internal urethrotomy, and, after two weeks had allowed the patient to leave the hospital saying that no further treatment was necssary. In this case it would have been far better for the surgeon to have lost an operation and the patient taught to pass a reasonable-sized sound upon himself. I would not be understood as opposing the use of urethrotomy, but would confine its use to those cases where elastic tissue is a chief constituent of the stricture which, therefore, does not improve under the dilating treatment, and old firm inodular strictures where the sound must be used faithfully afterward, in order that the patient may be even comfortable. As regards the pendulous urethra, this is about the stand taken by German and English surgeons, and now by most American authorities, other than those directly under the teachings of **Professor Otis**.

Little or no difference of opinion exists as to the proper treatment of strictures of moderate calibre at the bulbo-membranous junction. Dilatation is the treatment, and permanent cure is seldom accomplished. Firm strictures of smaller calibre usually demand exterior perineal urethrotomy or the combined operation. We hear little to-day of divulsion, and perhaps for this reason I was especially interested in a recent article by DOCTOR CHARLES S. SCUDDER, of Boston, which shows that in the Massachusetts General Hospital during the last twelve years five hundred and four narrow strictures were treated, and of this number four hundred and four by divulsion, most of them with BIGELOW's divulsor. Most of these were emergency cases, with narrow strictures, and, as a rule, preliminary treatment not possible, and yet the percentage of deaths was only one and nine-tenths per cent., a very good showing, it seems to me, considering all the complications naturally found in emergency cases of a large city. In concluding, DOCTOR SCUDDER says: "Divulsion, when tissues are split beyond diseased portion, increases the cicatrix; in firm, tough strictures divulsion is contraindicated; divulsion is preëminently fit for soft, yet sufficiently firm, strictures, causing retention while yielding to little force.

From these conclusions I would not be inclined often to resort to divulsion, and it is in these latter cases with sudden retention that we can resort to suprapubic puncture, allowing perfect rest of the bladder and urethra, permitting the congestion to subside, after which dilatation can be easily instituted and carried out.

For this purpose I use a trochar made for me by Milburn & Company, of Detroit, a modification of one that I saw PROFESSOR VAN DITTEL use a number of times in his hospital wards in Vienna.

In conclusion, let me again refer to a few points already mentioned.

(1) Stricture of the urethra is due to long continued, while not necessarily severe, inflammation, therefore we must be more thorough in the treatment of chronic urethritis.

(2) In all cases of chronic urethritis the meatus should be cut to full size, both as a curative and diagnostic measure.

(3) If the mentioned theory of the effect of the application of the sound is correct, dilatation and not urethrotomy is the proper treatment for most cases of stricture of the pendulous urethra.

(4) Quite a large percentage of strictures may be permanently cured.

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## A REMARKABLE CASE.

By JOHN S. OWEN. M. D., DETROIT. MICHIGAN.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

ON October 27, 1892, DOCTOR T. W. TREHARNE, at that time a practicing physician in this city, brought his brother-in-law to me as a subject for consultation. The patient, aged forty-eight years, is a farmer, and resides on his farm near Ivan, Ontario, a small hamlet about fifteen miles west of London. Four years previous he suffered from a very severe attack of the grippe, which wrecked his once strong and robust constitution. Being accustomed to an active outdoor life, patient found, to his great sorrow after recovering from the grippe, that he was but an apology to his former self, and although he was during the attack under the care of two of the best local physicians, every effort to save his strength and to try and carry him through in good shape was of no avail. He was as weak as a child, and tonics, stimulants, exercise, riding, et cetera, apparently were useless. His physician referred him to others more prominent in the profession for treatment. During the four years following the attack of the grippe, patient was at various times under the care of six different physicians, each one of whom, after treating him awhile, gracefully retired under the plea that he (the patient) was suffering from "nervous prostration," and that "nothing more could be done" to restore his health and strength. They all agreed on this point, and they were right as far as they went, but they failed to go far enough.

After giving up hope of ever recovering his strength, patient decided to come to Detroit and visit his sister and her husband, Doctor Treharne. It was thought by his physicians that a change of scene and air would be beneficial, and they fully endorsed his decision. Patient arrived in Detroit October 10, seventeen days before I saw him. During these seventeen days he would occasionally ride out with Doctor Treharne, and when not inclined to ride would walk back and forth on the sidewalk, and would put forth every effort to be cheerful and sociable. His walks, however, were not very long ones. It was a severe tax on his strength to walk a block and return, and on several occasions he was obliged to rest before returning to the house. During this time Doctor Treharne made a special study of his case, and arrived at the same conclusion as his predecessors in regard thereto, namely, nervous prostration, but with this exception, that he recommended patient to have his eyes examined in the hope of there finding some abnormal conditions. Patient, after having considered that he had given the change in scene and air a sufficient trial, consented to an examination of his eyes.

After making a thorough examination I found that each eye required the constant use of a convex lens (+ 1. D. S.) to correct a manifest visual defect (hypermetropia). Also that there was a latent strabismus of a very high degree, namely, the left eye upward ten degrees, and inward fourteen degrees; and the right eye downward ten degrees, and inward fourteen degrees (hyperesophoria).

On October 28, the day after making the examination, I performed a graduated tenotomy on the left superior rectus, and two weeks afterward a similar tenotomy on the right inferior rectus, with the result of correcting the vertical divergence.

Seven weeks after the first operation (December 16), a tenotomy of the internal rectus of the left eye was made, and on December 30 the internal rectus of the right eye was treated in a similar manner. The result of these interni operations was an absolute correction of the latent horizontal convergent strabismus.

Patient began to regain his strength a week after the first operation, and after the third operation he could walk about two miles, the distance from his residence to my office, without experiencing much fatigue. During the month of January he returned to his home in Canada and was so greatly improved in health and strength that he resumed his usual vocation as a farmer, and before the end of the month was chopping down trees in the forest and cutting them into cordwood.

September 16, 1893, the patient called at my office and reported that he was feeling as well and strong as he ever did. He was also heard from April 26, 1894, at which time he continued to enjoy good health.

The explanation of this interesting case as proven by the result of the treatment is as follows: the attack of the grippe produced almost complete prostration, from which it was impossible to recover by the ordinary method of treatment, so long as the constant waste of nervous energy was going on in his eyes. The examination of his eyes revealed a tendency of his left eye to turn upward and inward, and the right eye downward and inward. This tendency of his eyes to turn aside from their normal position (heterophoria) was overcome by a *constant, unconscious effort* on his part. The constant effort to keep his eyes straight in order to avoid double vision, consumed so much of his nervous energy that an insufficient supply remained with which to build up his general strength. When his eyes were straightened by means of the operations, they remained straight *without any effort* on his part, thus checking permanently the waste of energy that had been going on for years. The strain on the eyes being relieved the body retained all the energy which it generated and thus his strength rapidly increased, until the normal standard was reached. No medicines were administered to patient while he was under my care.

## CORRESPONDENCE.

### LEIPSIC LETTER.

By COLLINS H. JOHNSTON, A. M., M. D., Grand Rapids, Michigan.

SEVENTH PAPER.

### CHLOROFORM THE PREVAILING ANESTHETIC IN GERMANY.

**Chloroform** is still the most generally used anesthetic in Germany, although it has given way to ether in many of the large clinics during the last three or four years. **Landau** was one of the first gynecologists to employ ether, and has done a great deal towards convincing the profession that it is a safer anesthetic than chloroform. He recently compiled statistics from a large number of German hospitals, which showed that chloroform had been held responsible for death once in every three thousand anesthesias. The number of cases in which ether has been employed was found to be quite small in comparison to those of chloroform; but including one or two deaths which could fairly be ascribed to other causes than the anesthetic, the ratio with ether was only one to fifteen thousand. **Landau** recognizes no contraindication to ether, and I saw it administered in his clinic to patients whose urine contained much albumen and casts. **Lawson Tait** pointed out years ago that the secretion of urine stopped during the period of ether anesthesia, and the opinion is quite prevalent in America and England that it should be avoided in patients with renal or pulmonary disease. Some of the Germans, however, seem to think it is absolutely devoid of danger, and I have many times seen an assistant in charge of an anesthetic place the inhaler over a patient's face and then leave her for several minutes, occasionally going out of the room. In one clinic I noticed that the inhaler used during plastic work was different from that used during laparotomies, and asked the assistant for the reason. He said the professor preferred the one used during laparotomies, but that in operations on the perineum, vagina, cervix, et cetera, during which the patient's face was hidden from the operator, he, the assistant, used another variety of inhaler which remained in place without being held, and thus allowed him to get in a position where he could witness the operation. A few surgeons even use ether with babies, and **Schaefel**, of Dresden, who does a large amount of surgical work in the children's hospital there, told me ether had been the only anesthetic used in his clinic for two years. I occasionally noticed the accumulation of considerable amounts of mucus in the air passages of children during his operations but he assured me that no case of bronchitis or pneumonia had yet followed its use. Some surgeons who generally use chloroform prefer ether with very feeble or old patients, or those with weak hearts, or when they anticipate an unsually long operation. Some of the Germans are exceedingly deliberate in their operations, and do not seem to think that an hour more or less of ether anesthesia makes much-difference to a patient. Yesterday I saw a patient under ether almost four hours in the clinic of one of the world's most distinguished gynecologists.

**Olshausen**, who is generally considered, I think, to be the leading gynecologist in Germany, has used ether but about one hundred times, and still prefers chloroform. On three occasions when ether was used, respiration became so impeded by mucus that it was necessary to substitute chloroform. In other cases the movements of the diaphragm were so intense that the operations were concluded with difficulty. These conditions, however, are believed by many to be the result of faulty administration of the anesthetic. Chloroform is also many times badly given at **Olshausen**'s clinic. The anesthetics are often in charge of young, inexperienced, volunteer assistants, who would not be allowed to assist at an important operation in any other capacity, and on several occasions I saw cessation of respiration from overdosing of chloroform. A case of death during ether narcosis at this clinic was mentioned in my last letter. Protracted vomiting is thought by some men to be less frequent after ether, and stimulants, which are often required after long operations, are better retained than after the use of chloroform. **Körte**, of Berlin, who is said to do more intestinal work than any other surgeon in Germany, uses ether in all operations upon the stomach, intestines, and gall-bladder, as he thinks there is less danger of the wounds being disturbed by vomiting.

Among the men who regularly use chloroform are **Gusserow**, **Winter**, **Martin**, **Vlit**, **Parvlik**, and **Rosthorn**. Having always been taught to keep the head low during its administration, I was at first quite astonished to see the position in which some of the men placed their patients when not in the **Trendelenburg** position, the head of the operating table being raised to an angle of from thirty-five to forty-five degrees. In addition to this, **Parvlik**, of Prague, who does not use the elevated pelvis position at all, places a rubber pillow under the patient's head, so that her neck forms an angle of at least seventy-five degrees with the plane of the table. He assured me that this elevation was not at all objectionable for chloroform anesthesia, and was quite amused when I told him it had been held responsible for a good many deaths in dentists' chairs in America.

## A SIMPLE METHOD OF PERFORMING ARTIFICIAL RESPIRATION.

A very simple method of artificial respiration is employed at **Olshausen**'s clinic. Standing at the side of the patient and facing her lower extremities, an assistant places the tips of his fingers under the edges of the ribs on either side of the epigastrium, and by drawing forwards and upwards the thorax seems to be as easily and effectually expanded as by raising the arms and thereby making traction upon the pectoral muscles as practiced in **Marshall Hall**'s method. Even in quite fat subjects it is not difficult to get the fingers well under the edges of the ribs, especially when the patient is in the **Trendelenburg** position.

## TREATMENT OF CHILDREN'S DISEASES.

**Berlin** does not offer very good facilities for the study of the diseases of children. **Henoch**, who for many years has been the most distinguished pediatrician in Germany, resigned the professorship in the University over a year ago, and the position has only recently been accepted by **Heubner**, of Leipsic. **Jacobi**, of New York, was offered the place, but preferred to remain in America. **Baginski**, whose book on the diseases of children is second only to that of **Henoch**, is director of a beautiful children's hospital with one hundred and sixty beds, and has a large material. But as the hospital is a long distance from the medical center of the city, he does not give much instruction to students, and is not a popular teacher. The courses in children in the "Ferier" are very disappointing, and much inferior to those in the New York Polyclinic and Post-Graduate School. There are many children's dispensaries, or polyclinics as they are called in Germany, about the city where one can see an immense number of cases in a short time, but they are mostly conducted by men unaccustomed to teaching.

There is a children's hospital with one hundred beds in Dresden in which I spent a good many pleasant and profitable hours. The sanitary arrangements in the older parts of many of these old European towns is not very good, and diphtheria is endemic in many places the year around. Dresden is no exception. The treatment of this disease at the children's hospital is very simple, and yet effective. As the disease is primarily a local one, the greatest emphasis is placed upon local treatment. No drugs at all are given internally, but the patient is fed as much as possible with milk, eggs, meat, bread and butter, beer, et cetera; wine or brandy is occasionally prescribed. Twice a day the nose and throat are very thoroughly cleansed with a weak solution of creoline, or lime-water, injected with some force from a syringe. A nurse seats the child in her lap, puts its legs between her thighs and holds its hands behind its back with her left hand while her right presses the child's head firmly against her breast; another nurse then depresses the child's tongue with one hand, and makes the injection with the other. The throat is then swabbed with balsam of Peru or glycerotannin by means of a cotton-wrapped probe or sponge holder. As soon as laryngeal symptoms present themselves the child is removed to a room the air of which is kept saturated with steam. If the symptoms of stenosis are not thereby relieved, but increase in severity, tracheotomy is performed. Children are, however, frequently brought in in whom severe stenosis of the larynx is present, but who are soon relieved by the warm, moist air, good food, stimulation, and energetic syringing, so that no operation is necessary. **Sprengel** makes an exception to his rule of using ether for anesthesia in children, and uses chloroform in tracheotomy. He always makes the low operation, below the isthmus of the thyroid gland. After the operation the child is kept upon its stomach a good part of the time, and the throat is not syringed again for twenty-four hours, at the end of which time the usual treatment is resumed. The child is kept in a warm, moist atmosphere as long as the tracheotomy tube is worn, which is usually five or six days. It is sometimes removed on the third day. Nothing is placed over the mouth of the tube. The results of tracheotomy in this hospital are unusually good. In 1893 it was performed one hundred and ninety-nine times with fifty-five per cent. of recoveries, and in 1891 one hundred and ninety-eight operations were made with sixty-three per cent. of recoveries. Considering the fact that children are often not brought to the hospital until they are almost dead, occasionally dying before the operation can be performed, these results are, I think, remarkably good, and should encourage practitioners not to put too light an estimate upon this operation. I have frequently seen a child sitting up in bed eating bread and milk the day after its performance. Many other plans of treating diphtheria have been tested in this hospital, such as papoid, strong bichloride solutions, SEIBERT's injections of carbolic acid into the tonsils, intubation, et cetera, but the above plan has given the best results. The treatment for scarlet fever is nourishing food, baths when the temperature is high, confinement in bed three weeks, and in the hospital six weeks. No drugs are given internally, and if the throat symptoms are severe, it is treated as above in diphtheria. The method of disinfecting the hands employed by SPRAENGEL is interesting from the fact that he and his assistants often go directly from an operation for tracheotomy to the surgical clinic. The hands are scrubbed three minutes with brush, soap and water, then one-half minute in three per cent. carbolic acid solution, and one-half minute in 1-2000 bichloride solution. The nails are cleansed thoroughly and scrubbed with a five per cent. solution of carbolic acid. Little sand glasses are placed before each washbasin by which the duration of the disinfection is timed.

## A VISIT TO THE AUTHOR OF THE COOL-BATH TREATMENT OF TYPHOID.

In the early part of April, in company with DOCTOR HENRY C. BUSWELL, of Buffalo, New York, I went to Stettin, which is three hours north of Berlin, to visit DOCTOR ERNEST BRAND. The name BRAND on the doorplate, which has been in the same place for forty years, looked a little odd at first for I had always seen the name spelled BRANDT. The doctor is a delightful old gentleman, about seventy years old, and was much pleased to see us. He had no typhoid fever cases to show us, as there had been but one case in Stettin in the last two years. He had recently read in an American journal an article saying that the cool-bath treatment of typhoid fever was impracticable in private practice, especially among the poor, and he took great pleasure in taking us to visit several very poor families, different members of which had in times gone by been treated in this way. One poor woman who lived in one room in a basement and had a small store in another, told me she ran her store, looked after her other children, did all of her own work, and gave her boy a bath every three hours day and night for two and a half weeks, three years ago, without any outside assistance. Typhoid fever is much less common in Germany than it was twenty years ago, and I have seen but few cases in the various hospitals I have visited. Some of the Berlin men told me that the type which had prevailed in the last few years was much milder than it was formerly; they thought this was in part due to improved drainage systems and purer water supplies. The decrease in typhoid in Berlin has been especially marked since the introduction of filtered water. BRAND is quite familiar with the literature of the world on the subject of typhoid fever, and showed us with considerable pride recent articles in medical journals from several different countries detailing the progress which the cool-bath treatment is making. He was about as familiar as we were with the views of OSLER, HARE, BARUCH, THOMPSON, J. C. WILSON, and other prominent American physicians who treat typhoid fever on the lines laid down by him thirty years ago. The treatment of fever by the external application of water is probably many centuries old, and CURRIE preceded BRAND in suggesting its use in typhoid. But the latter originated the method of its application. He was the first to systematize its use, and to prescribe exact rules as to when and how it should be employed. For this the world owes him a debt of gratitude it can never repay. He was also the first to suggest its use in any and every other disease attended by high fever, and to-day in one of the largest and most scientifically conducted children's hospitals in Germany every child whose temperature exceeds 102° receives a cool bath, irrespective of the disease from which it may be suffering.

The antiseptic treatment of typhoid fever, as well as of other general diseases, is a failure. The bacilli of this disease are never found in the blood, but in PEYER's patches, the mesenteric glands, liver and spleen; occasionally also in the kidneys and urine. The symptoms are the result of an intoxication produced by the absorption of poisonous ptomains or toxines thrown off by the bacilli. If we could only subject these bacteria to a 1–1000 bichloride solution for a short time before their entrance into the body, nothing further would be desired. But as it has been found from experiments with animals that the fatal dose of an antiseptic agent, such as bichloride, carbolic acid, or creoline, for an animal is only one-sixth of the amount necessary to prevent the growth of certain bacteria in the blood serum of that same animal, and as by the time a physician reaches a patient the latter is suffering from the results of a chemical poison, the dosing of such a person with antiseptic drugs with a view of relieving him of his symptoms is about as sensible as attempting to extinguish a fire by stepping upon the match which gave rise to it.

BRAND has a record of one thousand two hundred and twenty-three cases of typhoid fever treated by the cool bath, with a mortality of but one per cent. About four hundred of the cases occurred in his own practice. I wonder what one of the many large drug firms in America which are constantly, and with a persistence worthy of a better cause, forcing upon the medical profession their specifics for this and many other diseases, can produce a similar record for one of their pet preparations? I wonder how many physicians in America to-day are following the treatment of typhoid fever laid down in the literature emanating from some wholesale manufacturer or vendor of new drugs? The enterprising chemist is of great assistance to the medical profession in many ways, but we should not allow ourselves to be too easily mislead by the constant pressure he brings to bear upon us to believe in the all-sufficiency of drugs. Writing a prescription for a patent medicine, such as antipyrine or antifebrine, or prescribing a delusive antiseptic, such as salol or sulphocarbolate of zinc is somewhat easier than teaching a family how to administer a cool bath properly;

and the synthetic chemists of Germany are busily engaged in making up new chemical compounds to take the place of the old as rapidly as they fall into disrepute. But the obstacles to the hydrotherapeutic treatment are more apparent than real, and no conscientious physician will be prevented by them from using it. In the face of the lowered mortality the slight extra labor involved in so treating a patient should never be taken into consideration. Patients as well as friends soon see its beneficial results and cease their objections to its continuation.

## THE STUDY OF GYNECOLOGY AND OBSTETRICS IN PRAGUE.

Prague is a splendid place for the study of gynecology and obstetrics. Living is cheap, one does not have to pay out much for courses, and **PARVLIK** and **ROSTHORN**, the professors of gynecology and obstetrics in the University of Bohemia, are fond of Americans. Both speak English well, and gave lectures in English in Vienna, before coming to Prague. If one also desires to study pathology no better place can be found in Germany than **CHIARI'S** laboratory. Two of America's leading pathologists have spent several months there during the past year. The lying-in hospital has about two hundred beds, and is divided into three parts, one for the Bohemians, under **PARVLIK**, another for the Germans, under **ROSTHORN**, and the third for the midwives' school, under **RUBESKA**. They have about one thousand births a year in each department. The proportion of abnormal cases is not so large as at Dresden, although rickets is exceedingly common among the children of Bohemia. With but few exceptions the patients are unmarried women. **RUBESKA** is quite enthusiastic over symphysiotomy. He has performed it six times, and thereby saved five children. He says he will never again perforate a living child. He thinks division of the symphysis pubis is especially indicated in conjugate veras of between six and a half and eight and a half centimeters, but does not hesitate to make it in a pelvis of normal size if the head is large and cannot otherwise enter. **ROSTHORN** made six Caesarean sections and one symphysiotomy last year. The latter patient left the hospital on the twenty-first day. He thinks the operation has come to stay.

**PARVLIK** and **ROSTHORN** have large gynecological clinics, and operate every day. The former has done considerable work on the urinary organs, and showed me some of the most interesting cases I have seen. He first catheterized the ureters through the undilated urethra fifteen years ago. This he says it is possible to do in about two-thirds of all cases. Where, however, this free-hand catheterizing is difficult on account of irregular shape or abnormal location of the mouth of the ureter, he dilates the urethra and introduces a speculum into the bladder through which the ureteral openings are readily seen. The dilatation is made by means of the old **SIMON'S** hard rubber dilators, after which he introduces a urethral speculum and illuminates the bladder by means of an ingenious electric light which is introduced into the bladder through a thin metal speculum. The handle of the light is flat so that it takes up but little space in the speculum, and a small stream of water runs through it to keep the metal and glass shield around the tiny globe of the electric light cool, otherwise the patient's bladder would be liable to be burned. A case of pyonephrosis which he had treated for three months with catheterizing the ureter, washing out the pus sac with antiseptics, and then with astringents, was almost well. The urine was almost free from pus, the streptococci which were very numerous in the discharge when the treatment was begun had disappeared, and the cavity which in the beginning admitted five ounces of fluid had contracted to one and a half ounces. The disease was of two years standing, and the patient was sent to PARVLIK to have the kidney extirpated, but she was so weak and emaciated that he did not dare to operate. When I saw her she was fat and rosy, and apparently in the best of health. He had tried several different antiseptics and astringents in treating the case, but obtained the best results from irrigating the kidney with a three per cent. solution of boracic acid until the returning fluid was quite clean, and then with a 1-3000 solution of nitrate of silver. The patient is placed upon the back, the perineum well retracted with a speculum, the catheter introduced in the bladder and held almost perpendicular to the plane of the table, while an attempt is made to engage its point in the mouth of the ureter. While this is being done its tip can be seen through the anterior vaginal wall playing over the base of the bladder. PARVLIK also showed me a case in which he had resected the right kidney on account of hydronephrosis. In passing the ureteral catheter he found that at one time pure urine would flow through the catheter, while at another time it would be pure cystic fluid. He, therefore, concluded that the ureter divided into two branches before it reached the kidney, one branch going to healthy tissue, the other to a cyst. The diagnosis was confirmed by laparotomy when he removed that half of the kidney which contained the cyst, together with the branch of the ureter running to it. After the operation it was found that the right kidney still secreted one-half as much urine as the left.

## THE FIRST SUCCESSFUL EXCISION OF THE SUPRARENAL CAPSULE.

PARVLIK recently made the first successful excision of the suprarenal capsule on record. This organ had been twice removed before, for carcinoma, but both patients died. His patient was forty years old and had a large tumor occupying the left side of the abdomen, of two years standing. It extended from under the ribs to the crest of the ilium, completely filling the left side of the abdominal cavity, and reaching to the right of the median line in front. Its shape, consistence, et cetera, excluded the idea of its being of splenic origin, and it was thought to be a kidney tumor until catheterizing the ureters showed that the left kidney secreted as much urine as the right. Moreover, a small kidney-shaped tumor, situated under the abdominal wall, to the right of the median line and in front of the large tumor, and which at first was thought to be the right kidney, was concluded to be the left because the catheter when introduced into the right ureter passed in the direction of the normal location of the right kidney, although considerable farther. The diagnosis was, therefore, either a tumor of the left suprarenal capsule, or one involving only a very small portion of the left kidney. Laparotomy disclosed a cyst of the suprarenal capsule containing ten quarts of a bloody-colored fluid. It ruptured during removal, so that a counter opening was made in the lumbar region through which a drainage tube was introduced. PARVLIK prefers to operate on any kidney tumor, which does not contain pus, through the abdominal cavity, as the operation is then much easier, and not more dangerous than through a lumbar incision. The latter incision is used when the tumor is supposed to be a suppurating one. The left kidney was in a long pouch of peritoneum, which was attached to it on all sides, and was in the position mentioned. It slowly ascended after the operation and soon resumed its proper position. The right kidney was pushed up above the liver; and only its lower edge could be felt at the operation. The patient made a good recovery. There was no history of ADDISON's disease to give rise to disease of the suprarenal capsule.

## CASTRATION FOR UTERINE MYOMATA.

PARVLÍK is one of the few men I have seen who perform castration for uterine myomata. This he has done nineteen times. Two of the patients died, one from embolism of the pulmonary artery on the fifth day. In a third case improvement did not begin until five months after the operation. In the remaining sixteen cases, the hemorrhages, et cetera, began to decrease almost immediately and entirely disappeared in a short time. All of the tumors decreased in size, and some entirely disappeared. He believes that removal of the ovaries should be the first operation resorted to in all interstitial myomata not reaching above the umbilicus. Castration is not so likely to be of service in submucous tumors, but may be tried when they cannot be removed through the vagina. There is always more or less glandular or hemorrhagic endometritis with a myoma, which is most pronounced in the submucous variety. I have seen several cases of hemorrhagic endometritis which were unrelieved by removal of the ovaries, and for which it was necessary to perform vaginal hysterectomy, and the presence of a fibroid in such a case would not tend to render castration any more successful in stopping the bleeding.

## A RECORD IN ABDOMINAL HYSTERECTOMY.

ROSTHORN, who was formerly CHROBACK's assistant at Vienna, has been professor of gynecology and obstetrics at Prague about three years, and is only thirty-six years of age. He is especially proud of his record in abdominal hysterectomy, having performed it fifty times with but one death. He follows the retroperitoneal treatment of the stump proposed by CHROBACK four years ago. The broad ligaments are tied off in the usual way, a long anterior and a very short posterior peritoneal flap are raised from the uterus and stripped down, and the uterus is cut off on a level with the internal os with the PAQUELIN cautery. The cervical canal is then energetically cauterized and enlarged, so as to permit of the passage through it into the vagina of a piece of iodoform wicking to serve as a drain. The broad ligament stumps are now covered with peritoneum, and the long anterior peritoneal flap is brought over the remains of the cervix and sewed to the short posterior flap, which has retracted below the top of the stump. In this way the peritoneal cavity is completely closed, and whatever fluids happen to escape find their exit in the direction of least resistance, which is through the cervical canal. The advantage of this method of treating the pedicle was illustrated in one of the cases upon which I saw ROSTHORN operate. A short time afterwards hemorrhage took place; the blood was conveyed directly to the vulva by the iodoform drain; the vagina was immediately tamponed with iodoform gauze; the bleeding stopped, and the patient made a smooth recovery. The cervical drain is removed on the third or fourth day. This method of operating takes much less time than the old SCHROEDER amputation which is still practiced by some men, and which requires from fifty to one hundred sutures, while the Chroback operation requires only fifteen or twenty. Rosthorn is one of a good many German surgeons who do not seem to think the mortality after an abdominal section is in any degree proportionate to the length of the abdominal incision and the amount of exposure of the intestines to the air. He is very careful in sewing up the abdominal walls, however, which he always does with three rows of sutures; one in the peritoneum, another in the fascia and the third in the skin. He uses silk altogether, while Parvlik uses nothing but catgut.

### THE APPLICATION OF BACTERIOLOGY.

Rosthorn puts bacteriology to very practical use in his clinic. The following case will serve as an illustration: Mrs. R., aged thirty-four years, had an abortion four years ago, followed by three weeks of fever. Seven months ago she had another abortion followed by four weeks of fever. Four months ago she had an attack of pelvic inflammation, since which time she has had much pain and pressure in the left side. Bimanual examination showed a tumor in the left side of the pelvis closely connected with the uterus, but an exact diagnosis was impossible. On opening the abdomen the tumor was found to consist of a large, thick-walled abscess involving the appendages of the left side, but whether tubal or ovarian in origin could not be determined. Its removal without rupture seemed almost impossible, so, following his rule in such cases, Rosthorn aspirated the tumor, and gave the pus to an assistant for examination. In five minutes the assistant returned with the information that the pus contained many streptococci, the bacteria most dreaded by the surgeon, and the usual causes of septic peritonitis. He, therefore, made no attempt at enucleation, but carefully stitched the surface of the tumor to the abdominal incision, and incised it, when a large amount of pus and gas escaped. He then irrigated the cavity with a solution of salicylic acid, and introduced a drainage tube. The patient did well. A culture of the streptococci showed them to be virile.

### THE AFTER-TREATMENT OF LAPAROTOMY CASES AT PRAGUE.

The after-treatment of laparotomy cases at Prague is a little different from that used in the German clinics, while the German after-treatment differs very radically from that generally employed in America. The Germans give morphia very freely after laparotomies, and consider it the sheet anchor in peritonitis, whether septic or aseptic. Rosthorn, however, gives no opium after an abdominal section. If the abdomen is distended on the second day, he gives an enema of chamomile tea to stimulate peristalsis, and if no relief is obtained, an attempt is made to move the bowels with enemata on the third day. Parvlik gives no opiates unless pain is very great, but gives stimulating enemata on the second day. The Germans, as a rule, do not attempt to secure an evacuation of the bowels before the fifth or sixth day. But if any symptoms of peritonitis are present, instead of giving a rapidly acting purgative which is considered t be the sheet anchor in the treatment of septic peritonitis in America, and whic is given at the first sign of distension of the abdomen, attempts to move th bowels are very carefully avoided, and if hot applications do not relieve the pai opium or morphia is freely given. Many men believe that a single hypodermi of morphia after a laparotomy is a useful measure. It quiets nervousness an restlessness, thus diminishing the tendency to hemorrhage; relieves the pain o the first few hours which is often due to compression of the nerves of the stump and which usually disappears in twelve or twenty-four hours; and quiets the nausea and vomiting which is so often caused by the anesthetic.

## PEDIATRY AT THE FINDAL AUSTALT.

Prague is the seat of a famous children's hospital called the Findal Austalt. Its director is **Epstein**, whose name is well known in medical literature, and who has originated several well-known methods of treatment in children's diseases. The best known is perhaps that of washing out the stomach of infants in acute diarrheal diseases, which he began doing about ten years ago. **Siebert**, now professor of diseases of children in the New York Polyclinic, spent a couple of months with **Epstein** about seven years ago, and introduced the treatment in America upon his return. It is used in every case of diarrhea in the hospital, and if resorted to early enough is frequently all that is required. It benefits the child in two ways. First, the stomach is rid of its decomposing contents which contain large numbers of putrefactive bacteria, and which the stomach does not readily expel itself, as its motor activity is always decreased in gastrointestinal disorders. Second, the irritation of the washing causes an increased secretion of hydrochloric acid, which is the natural as well as the best stomachic antiseptic. Examination of contents of a stomach a short time after washing it out always shows the amount of free acid to be increased. This treatment is valuable in all cases of acute gastrointestinal trouble in infants and small children, but especially so in cholera infantum. In the latter affection **Epstein** says it sometimes takes an hour to get the stomach clean. It is easily carried out by means of a soft rubber catheter, to which is attached a piece of rubber tubing in the other end of which is a funnel. The introduction of the catheter into the baby's stomach is exceedingly easy; in fact they often pay but little attention to it, and sometimes go to sleep with it in place. Only pure water is used for the irrigation. Washing out the stomach with abstinence from food for twenty-four or forty-eight hours is **Epstein**'s usual treatment for summer diarrhea.

**Epstein** handles the subject of "worms" in children in a very practical manner. When a fond mother informs him that her child has worms, he does not take her word for it, but passes a catheter a short distance into the child's rectum and withdraws a bit of fecal matter in the eye of the instrument. This is then put under the microscope. Round worms pass their ova as regularly as a clock, and they are equally distributed throughout the feces, so that if worms are present ova are regularly found in a microscopic preparation. The ova of tapeworms are not so plentifully and regularly thrown off, so that several preparations may have to be examined to find a specimen. All babies are weighed every four or five days when under treatment for any wasting disease. When a mother comes to him and says that her baby is not doing well under the treatment prescribed, that he is not giving it enough nourishment, or is not feeding it often enough, he simply puts it upon the scales, and if it has gained the necessary fifteen, twenty, or twenty-five grams a day, no change is made. He says the scales are as useful in treating babies as the thermometer is in the treatment of a fever patient. Nursing babies are fed every three hours, and bottle-fed babies every four. They are then given as much as they will take, and are not fed again until the expiration of the prescribed time under any circumstances. His long experience in washing out stomachs has taught him that it usually takes a baby's stomach two hours to empty itself of mother's milk and three hours of cow's milk. Every baby's stomach, when healthy, contains an excess of free hydrochloric acid, which is not only a digestive agent, but the natural protector of the stomach against pathogenic bacteria. When a child is fed before the last meal is completely digested the residual acid is used up, and there is nothing to prevent the growth of bacteria. Fermentative and putrefactive changes then take place with their well-known consequences. EPSTEIN believes the limewater so often added to cow's milk is prejudicial to its digestion. Cow's milk contains no free hydrochloric acid; when acid in reaction it is from combined acids. Now, if a certain amount of cow's milk be placed in a test tube, and the same amount of mother's milk in another, and if to each be added a small amount of methyl orange or other test for free hydrochloric acid, it is necessary to add eight times as much hydrochloric acid to the cow's milk as to the mother's milk to get the same reaction, a large amount of acid entering into combination with the cow's milk. If, then, the free acid of a baby's stomach is used up eight times as fast by cow's as by mother's milk, how illogical it seems to increase the burden of the baby's digestive organs by adding limewater to the cow's milk.

LEIPSIC, June 15, 1894.

# EDITORIAL ARTICLES.

## THE SAN FRANCISCO MEETING.

THE recent meeting of the American Medical Association, in San Francisco, was notable in more ways than one, but in one was especially notable in that it selected as the occupant of the presidential chair for the ensuing year an honored and distinguished member of the profession of our own state. The profession will have hailed with satisfaction the announcement of the election of DOCTOR DONALD MACLEAN to the presidency of the association, feeling that in making this selection the association made a choice worthy of its traditions and honorable to itself in the highest degree. The profession having possessed in DOCTOR MACLEAN not only a vigorous defender of its honor and privileges, but a distinguished exemplar of its attainments and scholarship, will feel that the honor thus conferred, by the profession as a whole, could not have been more deservedly or creditably bestowed.

## QUACK NURSES.

WHILE deploring the inadequate character of much that pertains to medical education, the medical profession has hitherto had reason to be proud of one branch of medical training which it has always zealously guarded and kept in its own hands, the training of nurses. The schools connected with nearly every general hospital in the country furnish to those who may desire to make the care of the sick an avocation, opportunities for pursuing these studies in a reasonable and profitable way. Our trained nurses, as a result of this, have achieved a very desirable reputation for efficiency and attainment. This will make more poignant the grief many will experience in finding that quack devices and diploma-mill practices are at length to invade the domain of the professional nurse.

An institution domiciled in Detroit, and known as "The Correspondence School of Health and Hygiene," has issued an announcement wherein it proposes to give "instruction by the correspondence method in the care of the sick." The announcement goes on to say—"We are assured by competent specialists that our course, if thoroughly studied by a reasonably intelligent person, will render the pupil as truly a trained nurse as the great majority of those who come from the training schools, and that we can with perfect propriety grant a certificate as a trained nurse to one who has finished our course, certain conditions having been observed."

The names are not given of the "competent specialists" who consider the nurse trained by correspondence "as truly a nurse" as those who have had extensive clinical experience in the hospital.

The physical and mental requirements of the nurse who is to be "correspondence-trained" seem to be few. "No previous training or study is required other than ability to read and comprehend;" neither is age much to be considered—"we do not think sixteen too young nor fifty too old," says the catalogue. Imagine the sixteen-year-old eight-dollar correspondence-trained nurse face to face with a case of placenta previa, never having seen a case of ordinary labor, and so incapable of realizing the responsibilities of her position that she may not know enough to call the doctor. Yet these responsibilities have apparently been weighed by her teachers for they say "it is with a sense of the true dignity of our task that we have taken upon ourselves the great responsibilities it imposes."

There can be no objection to people who may so desire, acquiring knowledge of nursing through text-books or by correspondence. All knowledge is useful. There is, however, decided objection to one who may have been so occupied posing as "a trained nurse" or considering herself "as truly a nurse" as one who has faithfully and laboriously acquired the theoretical and technical knowledge of her profession.

An announcement has been issued by "The Correspondence School of Health and Hygiene," which states "We are pleased to announce that an arrangement has been made by which the graduates from the course of nursing offered by our school will be accepted for practical service as nurses in the Woman's Hospital and Foundling's Home, one of the leading hospitals of the city of Detroit." In regard to which statement the hospital authorities desire the resolution appended to be made known:

WHEREAS, The arrangement, providing that nurses from the Correspondence School of Health and Hygiene be allowed to practice in the Woman's Hospital and Foundling's Home, was made without due consideration; therefore

*Resolved*, That such arrangement be and is hereby discontinued from this date, and that a resolution to the effect that no relation whatever exist between the said Correspondence School of Health and Hygiene and the Woman's Hospital and Foundling's Home be published in medical journals already specified.
MRS. KATHARINE V. H. WELLS, Recording Secretary.

## EDITORIAL BREVITIES.

### THE MICHIGAN DELEGATION TO THE AMERICAN MEDICAL ASSOCIATION.

A DELEGATION from Michigan to the meeting of the American Medical Association, in San Francisco, started in a special car on Sunday, May 27, over the Grand Trunk railway. The members of the profession included in the party were DOCTORS W. E. BURTLESS, A. N. COLLINS, H. S. CHAPMAN, W. T. DODGE, D. E. FULLER, F. B. GALBRAITH, R. W. GILLMAN, W. G. HASTIE, A. W. IMRIE, H. KREMERS, D. LAFERTE, D. MACLEAN, D. MCLEAY, F. W. MANN, J. J. MULHERON, F. W. ROBBINS, A. L. SMITH, C. G. SUYLANDT, G. W. STONER, M. STAMM, H. D. THOMASON, and F. B. TIBBALS. Many of the delegates were accompanied by their ladies. At Colorado Springs the route had to be changed, owing to a washout on the Colorado Midland Railway, and while the delegates regretted losing the Rocky Mountain scenery, they were glad to accept the courteous offer of the Union Pacific to be hauled over its road. In Chicago and Denver the delegates received many courtesies from the profession. Arrived in San Francisco, the party scattered to different hotels, and devoted themselves to various profitable and pleasurable enterprises. All felt rewarded for the journey when they found Michigan was to be honored by receiving the presidency of the association. The homeward journey was commenced June 10. The party traveled north to Portland by the celebrated Shasta route, at which point they had to abandon their car owing to floods. Portland had become a veritable Venice, and business on the principle streets was carried on in boats. The profession of Portland extended numerous courtesies. DOCTOR KENNETH MCKENZIE entertained a number of delegates at luncheon at the Arlington club. The journey from Portland to Tacoma was made for the most part by river. The condition of the Northern Pacific being unfit for travel, a week had to be devoted to the scenery of Washington, and excursions were made to Victoria and Vancouver. At Victoria the delegates received numerous courtesies at the hands of the profession. They visited the warships in the harbor of Esquimault, and enjoyed the beautiful scenery of Puget Sound. Snoqualmie Falls, Washington, the Niagara of the west, were next visited, and then the homeward journey commenced. This was diversified by numerous strange experiences. Thirty-six hours delay through a land slide was spent in the mountain town of Ellensburg, Washington. At Lake, the car was again abandoned and the travelers were transported in small scows over a lake, regaining the railroad at Port Hope. From this point progress was fairly uninterrupted. After a short delay at Spokane Falls, and another of an hour or two at Saint Paul the travelers arrived at Chicago, and being conveyed over the Michigan Central railroad, reached home on Sunday, June 24, one month after starting. The trip was an exceedingly pleasurable one, enjoyed by all. The company were harmonious and agreeable. All the cares of the journey were assumed for the delegates by DOCTOR A. W. IMRIE, whose experience as an overland traveler singled him out as the cicerone of the party. Too much praise cannot be accorded him for the efficient manner in which he superintended the tour. The delegates will long remember their eventful ride over the mountains, and the memory of their success in electing an honored physician of Michigan to the presidency of the association, will be mingled with many other recollections of a pleasing kind.

### THE LAW OF DEPOPULATION.

In *The Progrès Medical*, **Wassilieff** thus formulates a general biological law, "Living matter reproduces itself more readily the more inferior it is, other things being equal." As a corollary it must be admitted that superiority is characterized by diminished reproductive ability. The depopulation of France M. **Wassilieff** attributes to superiority of this kind. The law may be a good one as far as it goes, but scarcely includes in its terms the necessary inductions regarding the influence of nutrition upon genesis.

### THE CHILDREN OF YOUNG MOTHERS.

Much is to be said in favor of early marriage, and such marriages have hitherto been extremely popular in America. The effects of early marriage upon the offspring has not been carefully studied, but empirically considered these effects have usually been deemed prejudicial to the offspring. **Doctor Korosi**, of Buda Pesth, has stated the proportion of deaths among children from weakly constitutions and inherited maladies to be double that in the children of mothers under twenty it is in mothers over thirty. **Korosi's** investigations showed further the healthiest offspring to be born of mothers between thirty and forty. Malthusiasism would seem to have gained another point if these statements be confirmed.

### THE CODE UPHELD.

The San Francisco meeting called forth the conservative tendencies of the profession. Notwithstanding that the meeting was held in a locality supposed to be favorable to relaxed rules, in spite of the majority report and notwithstanding the maneuvering and the organization of sentiment within the association, the code was upheld. The code may be an antiquated document, its literary peculiarities may be accentuated, and its ethical dissertations may possess an archaic ring, nevertheless it stands for something which the sentiment of the profession almost unanimously agree to be worth preserving.

## MEDICAL NEWS.

### DEATH OF A PROMINENT PHYSICIAN.

**Doctor William T. Briggs**, of Nashville, died in that city on the 13th instant, aged sixty-two years. The doctor was born in Bowling Green, Kentucky, December 4, 1828. He received his literary training in the city of his birth, and graduated in medicine at the Transylvania University, in Lexington, Kentucky, before attaining the age of twenty-one years. He made his debut in the healing art at Bowling Green, practicing with his father three years, when, in 1852, he was elected demonstrator of anatomy in the medical department of the University of Nashville, which position he held until 1856, when he was made joint professor of anatomy. Subsequently he occupied the chairs of surgical anatomy and physiology, obstetrics and diseases of women and children, and surgery. During the civil war he was surgeon in the Confederate army. He was honored twice by the American Medical Association, being vice-president in 1881, and president in 1890. *The Nashville Medical Journal* was ably conducted by him for many years. He was one of the founders of the American Surgical Association and its president in 1885, served several times as president of the Tennessee State Medical Association, and at the time of his demise was professor of surgery in the medical department of Nashville University. In 1850 he married Miss Annie E. Stubbins, whose death occurred about two months since. Four children resulted from this union—one daughter and three sons, all the latter now being physicians.

### A MALPRACTICE SUIT.

DOCTORS A. H. GOELET and E. V. DELPHEY, of New York, had suit instituted against them by a Mistress Lally, who sought damages for malpractice in the administration of chloroform. Amputation of a gangrenous finger was the operation contemplated. The patient took less than one dram of chloroform and died. Evidence showed that the chloroform was skillfully administered, and that all reasonable effort at resuscitation had been made. It was urged that the chloroform had been administered against the patient's will, the protest being made—"Doctor, you are not going to give me chloroform, are you?" The judge's charge pointed out there were two facts to determine, whether or not the chloroform was administered against the will of the patient, and whether or not it was administered unskillfully. The jury gave a verdict for the defendants, and another malpractice suit fell through.

### A PRIZE FOR AN ESSAY ON TUBERCULOSIS.

AS AN inducement to cultivate original investigation the Colorado State Medical Society adopted the following resolution at its recent meeting held in Denver: *Resolved*, That this Society offer a prize of $100 for the best essay upon the following subject: "The Diagnosis of Tuberculosis by Microscopic Examination of the Blood." Preference to be given to new evidence and the detection of the pretubercular stage; all stages, however, to be included and microscopically differentiated. Paper to be condensed to read in thirty minutes' time, to be type-written, and the authorship to be kept secret till the award of the examining committee is made known. Prize open to anyone. Essay to be written in the English language, in comprehensive style, and as free from purely technical expressions as possible, accuracy of definition and clearness of diction considered. The committee to reserve the award for an essay they deem sufficiently meritorious, *that is, the rules to be observed enabling a diagnosis to be made from the blood alone, without the patient being seen.* All essays to be handed or sent to the chairman of the committee, Doctor Charles Denison, Denver, Colorado, by April 1, 1895.

### GIVEN LICENSE TO PRACTICE.

AT a recent meeting of the Illinois State Board of Health certificates entitling to practice medicine and surgery were issued to the following physicians: L. C. Pardee, Ignatz Mayer, G. S. Culver, E. I. Bradley, J. G. Byrne, M. H. Rosenberg, J. M. Schleicker, J. J. Temple, H. L. Armadale, A. L. Brown, K. B. Clapp, H. Evansen, A. Baylies, W. A. Bonniwell, S. Lewin, E. T. Allen, C. M. Jacobs, E. C. Martin, J. A. Mackinley, Grace A. Royley, and C. A. Wean, Chicago; J. T. Blackman, and H. L. Day, Wellington; C. W. Rinehart, Lemont; J. L. Taylor, Libertyville; A. F. E. Shierbaum, Grand Fork; S. A. Waterman, Auburn Park; G. Houston, Joliet; E. D. Kerr, Ocone; G. Taggart, Galesburg; J. H. Goodbread, Carbondale; E. L. Church, Havana; J. A. Shatswell, Wenona; M. C. Mullen, Englewood; V. R. Carter, Toledo; R. L. Baker, and E. M. Spaulding, Peoria; G. N. Maening, Braidwood. And to the following midwives: A. F. Anderson, H. S. Christensen, Gegeberg A. Enarson, C. P. Gullens, H. Hedland, H. Lewandeskowa, E. Lindstrom, E. E. Olsen, E. Osterberg, C. Ottosen, E. J. Timmons, C. Ulstad, A. Wernstrom, of Chicago, and H. Wyoblewska, Hyman.

### AN INVOICE OF DOCTORS.

THE medical colleges of the state are now indulging in their annual outing. In taking an accounting of the degrees conferred by them during the past year we find that 180 full-fledged physicians have been consigned to the already over-crowded Aesculapian field. The class at the University of Michigan has decreased considerably during the past decade, while those in the Detroit colleges have been notably augmented, especially that in the Detroit College of Medicine. The following is an authentic summary of the graduates in each school for the current collegiate year:

| | |
|---|---|
| Detroit College of Medicine, . . . . . | 87 |
| University of Michigan, . . . . . . | 63 |
| Michigan College of Medicine and Surgery, . | 30 |
| Total, . . . . . . . . . . | 180. |

### STATUS OF SMALL-POX IN MICHIGAN.

SINCE January 1, 1894, there have been fifteen outbreaks of small-pox, involving thirteen cities and towns and twelve counties in this state. Forty persons have suffered with the disease, and fifteen succumbed thereto in twenty-one infected houses. The first case was reported on January 9, the last June 11. Each outbreak averaged 2.7 cases and one death, and in eleven of the outbreaks the infection was restricted to the house in which it occurred. Doctor Henry B. Baker, secretary of the State Board of Health, has issued a circular in which he renders this accounting and congratulates the health officers and people of the state on the restriction of the disease. Regarding the importance of vaccination, the doctor takes occasion to remark that "The fifteen deaths out of forty cases are a powerful argument for vaccination and re-vaccination, because they show that among persons unprotected by vaccination small-pox is still the same deadly and dreadful disease that it has been—the mortality thus far having been 37.5 per cent." Other cases have occurred since this report was rendered.

### DEATH OF A COLLEGE PROFESSOR.

HENRY A. CHANEY, M. A., professor of medical jurisprudence in the Michigan College of Medicine and Surgery, of Detroit, died suddenly of apoplexy on June 14. He was a teacher of great worth, and his writings on medical jurisprudence bore the mark of merit. The following resolutions were adopted at a late meeting of the faculty of the college: *Resolved*, That in the death of Henry A. Chaney, M. A., professor of medical jurisprudence in this College, from its inception, the institution has lost a most valued and painstaking teacher, the faculty and students a faithful co-laborer in the truest sense, and the trustees and college a loyal and true exponent in all that pertains to scholarship, manliness and integrity. *Resolved*, That from years of close intimacy in the class-room, at social gatherings and at Faculty meetings, we gladly bear record as to his worth and believe him to have been an example of God's crowning handiwork,—a manly man.

*Resolved*, That our sincere sympathy is extended to his family and large circle of friends in their sudden bereavement. *Resolved*, That these resolutions be spread upon the records of the College, and that a copy be forwarded to the family.

## MINOR INTELLIGENCE.

BALTIMORE has seven medical colleges.

ASIATIC cholera is spreading in Russia.

NEW YORK has about ten thousand opium smokers.

THERE are seven hundred and forty-six licensed physicians in Oregon.

ANILINE colored candies recently caused two deaths in New York City.

HARVARD Medical School graduated its largest class this year—one hundred and twenty-seven.

THE American Medical Publishers' Association will meet at Hot Springs, Virginia, on August 13 and 14.

DOCTOR JOHN S. BILLINGS has been made Lieutenant Colonel and Deputy Surgeon General of the United States Army.

THE annual meeting of the Canadian Medical Association will be held at Saint John, New Brunswick, on August 22–23.

THE American Association for the Advancement of Science will meet in Brooklyn in August. The citizens have raised $5,000 to defray the expenses of the attending scientists.

A PRESENTATION to Doctor A. W. Imrie was made July 20 by his fellow-travelers to San Francisco. As a slight token of their appreciation of his services as guide, counselor and friend he now wears a valuable emerald ring.

A SMALL-POX riot recently occurred in Chicago. While attempting to isolate small-pox cases, six health officers were injured by a mob of Bohemians. Among those "knocked down, kicked and beaten," were Doctor E. H. Chloupek and Doctor George C. Hunt.

MR. PRIESTLY SMITH recently read a paper before the Ophthalmological Society of the United Kingdom, in which he advocated periodical testing of the eyesight of school children, and predicted that it would not be long before each school had an efficient oculist.

THE Central Medical College is the name of an institution recently organized at Saint Joseph, Missouri. A school of high grade is contemplated by the projectors, and as an initiative in this direction they have invested $2,000 in a building and $3,000 in equipments.

THE State Medical Council of Pennsylvania held its first examination of applicants to practice in that commonwealth early in June, and has announced the granting of licenses to two hundred and eighty, this number including thirty-seven homeopaths and seven eclectics.

THE United States Marine Hospital located at Detroit is to have a separate building for contagious diseases. It will be a frame structure, two stories in height, and contain two wards and an attendant's room. A residence for the surgeon in charge is also to be erected. The two buildings will cost about $12,000.

"Some of the Uses and Abuses of the Nitrites," is the title of an article published under the caption of "Original Contributions" in *The Canada Lancet* for July. This article appeared in The Physician and Surgeon for November last. We congratulate our contemporary on the source of its selection.

The Wisconsin Association of State and Local Boards of Health is the title of an organization to popularize sanitary work and knowledge in Wisconsin and labor for the enactment of effective sanitary legislation. It is composed of the State Board of Health and the local boards throughout the state.

The Tri-State Medical Society—Western Maryland, Western and Southern Pennsylvania and West Virginia—met in Cumberland, on the 28th ultimo. The attendance was large, and many papers were read and discussed. Doctor G. H. Carpenter, of Cumberland, was elected president, and Doctor A. Enfield, of Bedford, Pennsylvania, secretary.

The North Carolina State Medical Society and State Board of Health in conjoint session recently resolved to request the authorities of medical colleges to give at least two lectures weekly on the subject of hygiene, and the Board of Medical Examiners was asked to require of applicants preparation in this branch equivalent to that exacted in other subjects.

The Ontario Medical Council convened in Toronto on the 12th ultimo. The election of officers for the ensuing year resulted as follows: President, Doctor D. L. Philip, of Brantford; vice-president, Doctor W. T. Harris, of Brantford; registrar, Doctor R. A. Pyne, of Toronto; treasurer, Doctor W. T. Aikins, of Toronto; executive committee, the president, vice-president, and Doctor Campbell, of London.

The Eighth International Ophthalmological Congress will convene in Edinburgh, on Tuesday, August 8, under the presidency of Doctor Argyll Robertson. American ophthalmic surgeons who contemplate attending the meeting should notify the secretary, Mister George A. Berry, 31 Drumsheugh Gardens, Edinburgh. Membership involves reputable standing and the payment of one pound, which will entitle each to a copy of the "Transactions."

The Colorado State Medical Society elected the following officers at its recent meeting in Denver: President, Doctor Hubert Work, Pueblo; first vice-president, Doctor J. R. Robinson, Colorado Springs; second vice-president, Doctor E. Stuver, Rawlins, Wyoming; third vice-president, Doctor Laura Liebhardt, Denver; treasurer, Doctor W. F. McClelland, Denver; corresponding secretary, Doctor C. K. Fleming, Denver; recording secretary, Doctor E. R. Axtell, Denver; assistant treasurer, Doctor Charles Manly, Denver.

The Ontario Medical Association met in Toronto, on June 6–7. The contract system of lodge doctoring was discussed, and the practice declared unconstitutional under the statute. Officers for the ensuing year are: President, Doctor B. Smith, of Seaforth; first vice-president, Doctor A. A. Macdonald, of Toronto; second vice-president, Doctor Welford, of Woodstock; third vice-president, Doctor Saunders, of Kingston; fourth vice-president, Doctor Forrest, of Mount Albert; general secretary, Doctor J. N. E. Brown, of Toronto; assistant secretary, Doctor Charles Temple, of Toronto; treasurer, Doctor J. H. Burns, of Toronto. The next meeting will be held at Toronto.

The North Missouri Medical Association met at Moberly, on June 21 and 22. The attendance was large. Officers for the ensuing year were elected as follows: President, Doctor Highsmith, of Brookfield; vice-president, Doctor V. P. Martin, of Monroe City; recording secretary, Doctor E. S. Wenger, of Brookfield; corresponding secretary, Doctor Van Note, of Hannibal; treasurer, Doctor Robert Haley, of Brookfield.

A bill has been introduced in Congress which contemplates the disposal of sewage in the District of Columbia. It provides for an expenditure or $7,500,000, which sum will be utilized as follows: For the extension of the system of trunk sewers, $1,000,000; for the completion of the system of sewage disposal and protection against floods, $3,350,000; and for the improvement of streets, roads, avenues, and reservations, $3,150,000.

The Grand River Valley Medical Society will hold its annual meeting at Holland, on August 13 and 14, under the presidency of Doctor B. B. Godfrey, of Hudsonville. Papers will be read by Professor J. H. Etheridge, of Chicago, on "Placenta Praevia;" Doctor H. Kremers, of Holland, on "Appendicitis;" and Doctor S. C. Graves, of Grand Rapids, on "Orthopedic Surgery." The assemblage will spend the second day in pleasure at Macatawa Park.

A plague is prevalent in China. The disease is characterized by a rapid, malignant, contagious fever, accompanied by buboes, carbuncles, and livid spots. Its symptoms are violent headache, accompanied with violent tremors alternating with intense heat; the eyes become red and assume a ferocious aspect, resembling those of victims of hydrophobia; pain extends from the head to the spine, joints and limbs; vertigo and delirium now ensue; the tongue is dry and yellowish; respiration is difficult, nausea occurs, but rarely vomiting. The course of the disease terminates in from three to seven days. At least two-thirds of its victims die, many succumbing in a few hours.

The Minnesota State Medical Association recently inaugurated a movement against the propagation of tuberculosis by appointing a committee to proceed toward securing proper legislation. The Ramsey County Medical Society entertained the members at a banquet; Duluth was selected as the place for holding the next meeting; and the following officers were elected for the ensuing year: President, Doctor J. Ohage, of Saint Paul; first vice-president, Doctor W. A. Hall, of Minneapolis; second vice-president, Doctor F. S. Bissell, of Litchfield; third vice-president, Doctor John B. Dunn, of Saint Cloud; secretary, Doctor C. B. Witherle, of Saint Paul; treasurer, Doctor R. J. Hill, of Minneapolis.

The *Railway Surgeon* is the title of a new journal launched as the official organ of the National Association of Railway Surgeons. It emanates from Chicago, and is edited by Doctor R. Harvey Reed, of Columbus, Ohio. The initial number contains an article on "Color Blindness" by Doctor D. Emmett Welsh, of Grand Rapids, surgeon of the Grand Rapids and Indiana Railroad, in which he describes a method of examining railway employes for this defect. The completeness of Doctor Welsh's system cannot but commend itself. Out of 1,140 employes examined, the doctor shows that 8.42 per cent. discovered defectiveness, and 3.94 per cent. were color-blind. These figures in themselves are a sufficient argument for the necessity of the tests.

The profession will be grieved to learn that Doctor Collins H. Johnston, of Grand Rapids, who is now pursuing special clinical study in Europe, has been occasioned great anxiety recently by the visitation of diphtheria upon his eight-year-old daughter. She was taken with the disease on the arrival of the doctor's family in Leipsic, and after having been confined in the Children's Hospital three weeks was considered out of danger at date of last advice.

The thirteenth annual meeting of the South Dakota State Medical Society was held at Huron on June 22. The following officers were elected for the ensuing year, and the time and place for holding the next meeting will be named by them: President, Doctor R. T. Dott, of Alexandria; first vice-president, Doctor G. E. Martin, of Carthage; second vice-president, Doctor William Edwards, of Bowdle; first secretary, Doctor W. J. Mayturn, of Alexandria; second secretary, Doctor Earl Rice, of DeSmet; trustees, Doctors C. B. Alford and G. W. Moody, of Huron, and J. C. Morgan, of Sioux Falls. A banquet was provided by local members of the society and served by ladies of Grace Episcopal church.

The fifth annual meeting of the Association of Medical Directors of Life Insurance, was held in New York City, on June 13, under the presidency of Doctor Frank Wells. Many important questions bearing upon life insurance were discussed, a banquet was indulged, and the following officers elected for the ensuing year: President, Doctor Edgar Holden, of Newark, New Jersey; first vice-president, Doctor J. W. Fisher, of Milwaukee; second vice-president, Doctor H. Cabell Tabb, of Richmond, Virginia; secretary, Doctor O. H. Rogers, of New York; treasurer, Doctor John W. Brannan, of New York; executive committee, Doctors A. Huntington, E. J. Marsh, E. Curtis, of New York, and Doctor F. Wells, of Boston.

# RECENT PUBLICATIONS.

## REVIEWS.

### DISEASES OF THE SKIN.*

The well-known reputation of the author of the present work, as a dermatologist, would foster somewhat sanguine anticipations as to the merit of his manual. Those expectations are amply fulfilled. The manual is practical and clinical in scope, and its text comprises all the most modern knowledge concerning the subjects of which it treats. An interesting chapter on the bacteriology of skin diseases is included. The illustrations include nineteen well-executed chromo-lithographic plates. As a compact and modern manual of dermatology Doctor Morris' work will doubtless take high rank.

* An outline of the principles and practice of dermatology. By Malcolm Morris, F. R. C. S., Surgeon to the Skin Department, Saint Mary's Hospital, London, et cetera. In one 12mo. volume of 572 pages, with nineteen chromo-lithographic figures and seventeen engravings. Cloth, $3.50. Philadelphia: Lea Brothers & Company, 1894.

## A CLINICAL MANUAL.*

THIS book gives in a concise form, the various methods employed for making physiological examinations of clinical importance. The urine and its constituent elements are carefully considered and the modern method of analysis exemplified. The remainder of the volume traverses the examination of the stomach-contents, the feces, the blood, pathological fluids, and the principle pathogenic microörganisms. The manual is an excellent one, compiled in a spirit of understanding.

* A guide to the practical examination of the excretions, secretions and the blood, for the use of physicians and students. By Andrew Macfarlane, A. B., M. D., Instructor in Neurology, Albany Medical College. G. P. Putnam's Sons, New York.

## THE NURSES' DICTIONARY OF MEDICAL TERMS AND NURSING TREATMENT.*

"THE Nurses' Dictionary" has been compiled in a judicious spirit. The superfluous and technical have been avoided. The needful and useful have been incorporated. The definitions are exact and lucid. It will be found a help to nurses in the intelligent performance of their duties, and will doubtless be welcomed in the classes of the training school.

* By Honner Morten, author of "Sketches of Hospital Life," et cetera. W. B. Saunders, Philadelphia.

## THE CARE AND FEEDING OF CHILDREN.*

THIS little work is a seasonable and practical effort to familiarize non-professional people with much that is essential in the care and treatment of children. The important subjects of bathing, clothing, feeding and the minor ailments of children are touched upon and much information of a very useful nature imparted. Physicians very wisely recommend the little book widely, as it is an excellent manual for mothers and those entrusted with the care of the young.

* A catechism for the use of mothers and children's nurses. By L. Emmett Holt, M. D., Professor of Diseases of Children in the New York Polyclinic. D. Appleton & Company, New York.

## BACTERIOLOGY.*

DOCTOR NOVY is already known as the joint editor of an important work on bacteriology. The present volume is a hand-book for the use of students taking the course in bacteriology in the University of Michigan. It is judiciously arranged for the convenience of the student. Interleaved with blank pages for drawings and observations. Opportunities are afforded for the study of the most notable pathological microörganisms, and the course indicated by Doctor Novy's text-book would indicate that those who had fulfilled its requirements would possess more than the ordinary amount of information of the subject of which it treats. Doctor Novy's book seems calculated to supply an established need in the laboratories of medical colleges.

* Directions for laboratory work in bacteriology. For the use of the medical classes in the University of Michigan. By F. G. Novy, Sc. D., M. D., Junior Professor of Hygiene and Physiological Chemistry. George Wahr, Ann Arbor, Michigan.

# PRACTICE.

## THE TREATMENT AND CURE OF CHANCRE WITH PEROXIDE OF HYDROGEN.

THE subject of the best treatment of the primary sore of syphilis has occupied the minds of investigators of late years to such an extent that almost every surgeon has a different method, and the general practitioner is somewhat at a loss to know which is the best treatment to employ as the most expeditious means of relieving the anxiety of the patient and curing the lesion. The special purpose of this paper is to draw attention to a particular method of treatment, which not only relieves the anxiety of the patient and places him in a delightful buoyancy of mind, *but cures the chancre in the shortest possible time*, without pain or detention from business, and with less scar and less destruction of tissue than any other method.

The chancres of the following cases, selected from a good many recorded, were of the large Hunterian variety, embracing the worst forms of sloughing and phagedena.

*Case I.*—Mr. K., aged thirty-eight years, came to me January 29, 1891, with a large sloughing single chancre, situated on the right side and at the base of the glans penis, at the junction of the prepuce and very deep; incubation about thirty days; penis large and soft. Sprayed it with full strength solution (fifteen volumes) of peroxide of hydrogen medicinal (Marchand's), at sixty pounds pressure, and dressed with iodol powder, and continued the same treatment every morning at 7 o'clock.

February 20: Sprayed it as above; sore now only skin deep, and continued till February 23; sore healed; duration of treatment, twenty-five days.

*Case II.*—Mr. W. B. came to me September 6, 1892, with a single sloughing chancre on left glans penis, and corresponding ulceration on prepuce; incubation about thirty days; sprayed peroxide of hydrogen, full strength, sixty pounds pressure, and dressed with iodol; continued same treatment every evening at 7:30 o'clock, for sixteen days.

September 23: Sore almost healed.

September 25: Sprayed for last time to-day; duration of treatment, nineteen days.

*Case III.*—Mr. L., aged twenty-eight years, came to me, August 23, 1893, with a phagedenic chancre, thirty-five days incubation, situated immediately at meatus urinarius, and sloughing its way very rapidly into the urethra. Sprayed it with peroxide of hydrogen, full strength, sixty pounds pressure, and dressed with iodol powder. Continued the same treatment every evening at 7:30 o'clock.

August 30: Sore almost healed up, only some granulations left. Continued the same treatment every evening till September 4. Sprayed it to-day for the last time; there being only the surface of the sore about the size of a pin's head. Considered himself cured and said he would not come again. Duration of treatment, eleven days.

The above cases, selected from many recorded cases on account of their possessing the worst features of the initial lesion, serve as good examples of the treatment by the peroxide of hydrogen method.

I treated Mr. K., of *Case I*, on two different occasions for the same disease, in exactly the same manner, and the two cases are about identical in regard to length of time of treatment and as to details, and he got well in about the same manner.

The case of Mr. L., presented the worst features of phagedena, which was so virulent that I think he would have lost the greater part of the glans penis, if he had been treated by the nitric acid or caustic method, and, as it was, the ulcer healed with a very small scar, scarcely noticeable.

The pressure of the spray (sixty pounds), which is one of the most important factors in the whole method, not only cleanses and produces thorough asepsis of it, killing the germs of the disease at the very bottom of the ulcer, but the oxygen of the peroxide aërates the blood through the capillaries, and arrests the progress of the disease at the nearest possible point, allowing the process of repair to commence as soon as possible, according to the severity of the disease, with the least loss and destruction of tissue and consequent scar. It must be particularly understood that in using this treatment, all instruments, spray-tubes and bottles, must be made of either glass or hard rubber, for the reason that metals, with one or two exceptions, coming in contact with the peroxide, will destroy its component parts and render it useless, and I have found also a great difference in the results if the peroxide is fresh or otherwise. The first effect of a spray of peroxide upon the ulcer is to deposit upon it a thick film of albumen; this should be allowed to remain for about half a minute or less; then continue the spraying till a large tubefull has been used (one ounce); as the sore progresses the spraying causes a good flow of rich arterial blood upon it, which merely shows returning healthy conditions.

The treatment is entirely painless, and the patients do not experience any annoyance or inconvenience whatever while carrying the disease, and freely express themselves as well pleased with its effect.

No internal medication during this stage is given. The iodol powder is used only as an antiseptic, to protect the sore from external influences until it is sprayed again the next day, keeping the sore in as good a condition as it is left by the spraying, which must be done once every day until the ulcer is healed.

This method of the treatment of chancre, has been, in my hands, the best and most successful of all methods that I have heretofore adopted.—Willard Parker Worster, M. D., of New York, in *The Journal of Cutaneous and Genito-Urinary Diseases* for February, 1894.

## CLINICAL NOTES.

A valuable prescription for eczema, lichen, herpes, itch and other skin affections:

℞ Pineoline, . . . . . . . . ℥ij.

Signa—Apply twice daily.

As an all-around excellent stimulator of elimination, tongaline (liq-tong. salicylat—Mellier) is indicated. Pains which are present are well met by the salicylic acid contained in the compound and which is of the best form, being made from the oil of wintergreen. The pilocarpin, cimicifuga and colchicin which it contains are all stimulators of elimination. I usually administer from a teaspoonful to a tablespoonful at bedtime and oftener if necessary in order to clear out the bowels thoroughly.—I. N. Love, M. D.

The Physician and Surgeon

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### CONSUMPTION AND LEGISLATION.*

BY S. G. MINER, M. D., DETROIT, MICHIGAN.
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[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

THE subject of legislation regarding consumption or tuberculosis is one that is receiving considerable attention throughout the country, and it is doubtful whether we find as much literature on this subject in our medical journals as we do in the lay press. We find extensive articles in our monthly periodicals, magazines, and daily papers instructing the people how contagious a disease consumption is now considered. We are receiving daily calls from applicants for the examination of the lungs by individuals who have lost relatives or friends from consumption, and to whose presence they were exposed. Our medical journals, up to the past few months, gave the subject but little attention. The result of reading these articles in the lay press is far-sweeping and because of the fact that they are read by minds whose knowledge of the subject is almost *nil*, they carry every degree of weight and are thoroughly convincing.

These articles not being replied to, if read by the physician, create very improper impressions which needlessly frighten those who have been exposed to consumption, and prevent sufferers of this disease from receiving the usual kind attention of friends and family, and will, if not corrected place them in a position worse than criminal.

Our boards of health throughout the United States have considered, and some of them advised, the adoption of measures requiring that these cases be registered, the houses inspected and disinfected, and that isolation of the patient be insisted upon. It appears to some of us as though the medical profession were to be educated up to the contagious character of the disease and the measures for combating it, by the laity and lay press, instead of the profession educating the people. Many members of our profession believe that they see the shrewd hand of politics for the advancement of selfish desires of some, in their anxious and hasty efforts to establish hospitals for the isolation of these cases, under the plea of affording protection to our sadly exposed people. However, more of this later on.

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* Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

Many of us think that our boards of health have gone sufficiently far when they execute the laws of preventive medicine as accepted by the medical profession, and do not feel that they are justified in adopting the theories of a few members of the profession although encouraged by the convictions of the laity. Possibly the profession has been remiss in its duty by not acting upon this important subject, thereby not instructing our health boards, and it is for this reason that I believe all local societies should give expression to their views on this subject, so that our health boards may act intelligently and in accordance with the convictions of the majority of our profession. We certainly have had ample warning, and if we further ignore this subject should not be surprised if we find some morning that a law had been passed requiring us to register our cases of consumption and submit our patients to the usual methods adopted for contagious diseases. We all recognize how farcical are the methods at present employed, and I do not think that the further application of these methods will elevate the standing of our profession in the minds of the people.

It is not my intention to discuss the scientific aspect of the etiology of consumption but to a limited extent only, endeavoring to bring before you several of the most important conditions that have aroused this controversy, and I trust that none of my remarks will be considered personal, nor as being opposed to any of the results that have been obtained by bacteriological investigations, but intended simply to elicit the views of the members of the association, so that we may properly advise our patients and our boards of health.

The first question to be considered is—"Is consumption contagious, and if so, to what extent?" Some of the enthusiastic advocates of the contagious theory assert that consumption is always tuberculosis, and that contagion is the only method by which a person becomes affected, and that the route of infection is by way of exposure of the respiratory or digestive tract to the bacilli from the dried secretions or discharges of a patient or from undigested foods. This certainly produces a long sigh of relief to those who are so unfortunate as to have their family history tainted by a death from this dreaded disease, as heretofore heredity was considered by the profession as being the most important etiological factor,—so much so that insurance companies based their rejection of a risk, when this disease was concerned, almost entirely upon family history. The advocates of this contagious theory dispose of that old law now by stating that one only inherits the susceptibility and if never exposed to the tubercular bacillus they will never develop consumption. Their researches have discovered bacilli in the dust taken from the rooms, floor, wall-paper, bed-line or anything that may have been exposed to the patient's habitat. They als find the bacilli of tuberculosis in fruits, newspapers, and in the atmosphere, an explain that this is the result of the secretions becoming dried and pulverize and carried into the air. The air becoming inhaled by individuals and deposite along the respiratory tract, by virtue of the body heat and moisture of the part bacilli develop, and those who inherit the susceptibility and have no resistin force, will gradually become victims of tuberculosis. Perhaps the advocates of this theory do not apply it in such plain terms as this, but this is certainly the only logical inference to establish from their remarks.

To illustrate how easily some physicians accept a new theory and discard an old one permit me to call your attention to a brief extract on tuberculosis and its prevention in the March number of *Harper's Magazine* by DOCTOR T. M. PRUDDEN, and which also shows how much more positive statements are when given to the laity and when given to the medical profession. The doctor writes: "We have learned in the past few years one fact about tuberculosis which is of incalculable comfort to many, and that is that the disease is not hereditary. It is very important that we should understand this because it seems to contradict a long prevalent tradition and a belief still widely and sorrowfully entertained. What has been through all these years regarded as the strongest proof of the hereditary transmission of tuberculosis, namely, the occurrence of the disease in several members of the same household is, in the new light, simply the result of household infection—the breathing of air especially liable to contain the noxious germs or their entrance some other way into the bodies of persons especially sensitive to their presence."

This certainly is premature to say the least, and explains why the laity are so alarmed, and I think, shows a very light consideration of the most important subject. The statement that bacilli are found under conditions just mentioned we will fully admit, and that experiments have been made by injecting sterilized preparations of these substances into animals, and that tuberculosis has developed, while on the other hand we will find that other investigators have done the same thing without tuberculosis developing, and we also find investigators who state that the bacillus of tuberculosis could not be found in the lungs of some of their patients who had died from consumption.

Now, I do not wish to enter upon that broad field in controversy, namely, the duality and unity of consumption and tuberculosis, but simply refer to this to show that the profession is still unsettled on this question, and that certainly the inherited susceptibility may possibly develop into consumption from other causes than exposure to the bacillus of tuberculosis. Investigations made by DOCTORS CONRELT, FOREST and FLICK, are certainly very praiseworthy, and their numerous examinations among the poor in New York, Philadelphia, and New Haven may satisfy the most skeptical that the bacilli may exist in anything that comes in contact with the dried secretions that had not been sun-dried nor exposed to extreme heat, and this is certainly demonstrating a great deal, but the mere fact that a possible cause presents itself is no criterion that all inferences established upon its existence are correct. Undoubtedly we have all had cases in our practice that appeared as though contagion might have been the sole cause in the production of the disease, but were we cognizant of all the facts, and able to pursue thorough investigation, we might find some other good reason for the development of the case. We have all seen cases where an individual has succumbed to consumption after the death of another member of the family from the same disease, and felt fully convinced that contagion must have been an important factor in the case. Upon consulting my case-book and taking three hundred cases of consumption I found in their regular order but twelve cases where contagion would be solely suspected. I then made careful inquiries into the family history and other causes, namely, social and business responsibilities, mental worry, poor hygienic surroundings, et cetera. I found that with the exception of two cases the cause might be attributed to these conditions as well as contagion. The investigations of LANGSTAFF, as a mere matter of statistics, show that for every thirty-three married men who die of consumption that one woman would have tuberculosis as a mere matter of ordinary frequency, and FLINT shows that with over six hundred and seventy cases he had but five such instances. I have one case in mind where one woman had two husbands die of consumption and she never developed it, and we have all seen many cases where men have buried two wives from consumption and were still on a wild hunt for a third. It is certainly not uncommon for all of us to recall cases of consumption in families that were never followed by the death of others from the same disease. This, of course, is negative testimony, but in this case I think very proper.

DOCTOR FICK has been enabled to trace many cases of consumption of the so-called acquired form to houses that were formerly occupied by consumptive patients, making these investigations among the poor and unsanitary districts, where, of course, patients would be exposed to the same unhealthy atmosphere and the results of filth and other unsanitary regulations which have heretofore been deemed sufficient to develop consumption in those unfortunates who inherit the susceptibility.

The mere fact that the bacillus exists does not prove that it will be taken up by the human system, and, it is uncertain, as yet, to what degree the pulmonary mucous membrane or the digestive tract will permit of infection.

We may conclude, then, from these remarks that the attitude of the profession is:

(1) All cases of consumption may not be tubercular.

(2) Tuberculosis is a communicable disease.

(3) Tuberculosis may be contagious by the ingestion of food contaminated with bacilli, or by the inhalation of air impregnated with bacilli.

What, then, are the measures proposed to prevent the spreading of this disease? The following measures have been proposed:

(1) The disinfection of all secretions, requiring the patient to expectorate into a receptacle containing a disinfectant or on cloths or papers that will be burned; also a thorough washing of all articles of clothing that may have become soiled by any secretion. This certainly will be carried out by every physician who believes in the contagiousness of this affection.

(2) The registration of all cases of consumption. This question is one of the greatest importance, for as soon as you have done this, you have stamped the mark of the leper upon the poor unfortunate who will not suffer alone, but will subject his family to the same conditions.

What landlord would rent a house to any consumptive, or allow him to remain an occupant, well knowing that after his departure it would be almost impossible to secure another tenant? We must reflect that consumption, unlike scarlet fever and diphtheria, is not a disease of but a few weeks' duration but may linger for many years, and when we think of the advantages, pleasures and other conditions we are depriving the unfortunate of, that might greatly assist in his recovery, we must see how careful we ought to be before adopting any such measures.

Some have proposed the establishing of consumption hospitals in which to care for these patients, claiming that they would then be relieved of any such disadvantages. This, at first sight, seems the correct thing to do, but the results thus far entirely disprove the assertion. At one of our local hospitals where a special ward was created for consumption, while heretofore well patronized, since the contagion of consumption has been so extensively advertised, has had an extensive falling off in the number of patients. This is not only true here but I am informed on good authority that it is the experience elsewhere. We all know how difficult it is to convince a patient with consumption that the cough is not from the stomach or the throat or a mucous cough, and it would be difficult to get the most of our patients to go to a hospital of this character even if their friends permitted it. It seems to me that the establishing of a pulmonary ward in our hospitals, where all these measures could be carried on, would meet all the requirements indicated and not be attended by the repugnant attitude of the patient.

After careful consideration I can personally come to no other conclusion regarding the contagiousness of tuberculosis than this: That people inheriting the susceptibility to consumption manifest by acute or chronic inflammation of the respiratory tract, et cetera, should avoid exposing themselves to consumption, and that all discharges should be carefully disinfected, and all hygienic laws strictly observed. This can only be properly carried out by the attending physician, and any public official's interference would result in the concealment of cases and improper care. We must constantly bear in mind that before we have struck the key-note of prevention in consumption, the marriage of consumptives or those with marked tendencies should be strictly prohibited, as this is certainly one of the greatest causes in the spreading of this disease.

In closing this paper, I beg leave to submit the following resolution to your consideration:

*Resolved*, That the Detroit Medical and Library Association believes that the registration of consumptives will be adding uncalled for hardships to consumptives, and that at present it is inopportune to enact any laws for disinfection, believing that the medical attendant can more properly perform these duties than any official. We urge all physicians to insist on the disinfection of the sputum and of the sick-room and the separation of the patient from others, as far as possible.

# WOUNDS OF THE EYEBALL.

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[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

DOCTOR ELLETT, of Memphis, Tennessee, with whom I was associated in Wills' Eye Hospital, Philadelphia, recently wrote a paper published in the April number of *The Memphis Medical Monthly* which so nearly expresses my views on this subject that I quote freely from his paper.

As there is a great difference, both therapeutically and clinically, between wounds complicated by foreign bodies, and those which are not, we shall consider them separately.

There are, however, a few general principles, equally applicable to all wounds of the eyeball. The nature of the wound, its origin, and extent must be considered, and, above all, surgical cleanliness must be observed. While suppuration in a wound ordinarily means delayed healing with an unsightly scar, here it means the loss of an organ. Frequent and careful examinations to early detect and combat inflammation are imperative. "Symptoms which should be looked for are gray infiltration of the edges of the wound, particularly if it be corneal, turbidity of the aqueous humor, discoloration of the iris and puffiness of the bulbar conjunctiva. The first two indicate impending suppuration—the others inflammation of the uvea, that is, the iris, ciliary body, and choroid." If general infection seems imminent the anterior chamber should be irrigated with a boric acid or saline solution, and the edges of the wound cauterized. This, together with local blood-letting, ice compresses, atropia, and antiphlogistic doses of calomel, that is, one-tenth grain every hour are to be employed. Anodynes and attention to the secretions suggest themselves as in general surgery. Simple inflammations are met in the same manner, excepting the employment of irrigation and the cautery. Local blood-letting is accomplished by applying leeches to the temple, either natural or artificial. Their use is especially indicated in inflammations of the uveal tract, and the relief from pain thus obtained is truly wonderful. Ice compresses consist of pads of gauze or muslin, two inches square and several layers thick, which are placed on a block of ice and transferred to the patient's eye, being changed often enough to keep up the constant effect of the cold. Of the antiseptic solutions in use in ophthalmic surgery, bichloride of mercury one five thousand to one ten thousand, and boric acid five grains to twenty grains, are the ones most commonly employed. Care must be taken in the use of mercury in the presence of a corneal wound as a permanent opacity of the posterior layer may be formed. Iodoform, aristol and europhen are no doubt useful, but if cleanliness is certain we may dispense with them. To remove a small vitreous prolapse nothing acts better than iodoform.

Instruments are easily prepared by holding them for a moment in boiling water and drying with sterilized gauze. The finest-edged instruments are not impaired, and the method is efficient.

### WOUNDS NOT COMPLICATED BY FOREIGN BODIES.

*Contusions.*—By virtue of the protection afforded the eyeball by the projecting margins of its containing cavity, the organ usually escapes the effects of a trauma applied to the orbital region. Contusions may, however, result in anything from a simple conjunctivitis to a rupture of all the coats of the eye. The wounds resulting will be treated under their respective headings.

*Wounds of the Conjunctiva*, if at all extensive, should have their edges approximated by sutures which may be removed in two or three days. Cocaine renders their introduction painless, and the mucus which soon collects around them renders them tolerable. A boric acid wash to keep the parts clean is all that is needed.

*Burns.*—While burns cannot be properly classed as wounds, we shall consider them here purely for clinical reasons. Burns and injuries by caustics are pretty frequent, cigar ashes, molten metal, and lime, perhaps, being responsible for the majority of cases. The conjunctiva at the affected spot is destroyed and converted into an eschar. These spots stand out as gray or white patches in the midst of the reddened and swollen portion of the conjunctiva that is not escharotic. The cicatrix can lead to a diminution in the size of the conjunctival sac, or, if of great extent, to adhesion of the lids to the eyeball forming a symblepharon. The prognosis with regard to preservation of sight depends on the extent and the corneal involvement. The treatment consists in the removal of all corrosive substance with forceps or probe, and, if possible, with such solutions as shall neutralize its action. After thoroughly washing, sterilized oil, olive, or cod-liver should be frequently instilled, the lids each time being well separated to avoid adhesions. If inflammation sets in it is met by methods already mentioned.

*Wounds of the Cornea.*—These vary from superficial excoriations or erosions to wounds involving the entire thickness of the membrane. Erosions usually heal kindly under simple treatment, care being taken to guard against infection. If they are already infected the galvano-cautery or $H_2O_2$ or silver nitrate usually yield good results. If not central the galvano-cautery is, perhaps, the best. Wounds involving the whole substance of the cornea are serious, not only in that they lead to permanent opacities, which, if central, may greatly impair vision, but by their contraction may lead to irregular astigmatism. Perforating wounds, too, may be complicated by prolapse of the iris. Clean, incised wounds of the cornea usually heal without difficulty, but the same cannot be said of the jagged tears often caused by traumatism. Sloughing of the edges and infection may result in a useless eye or demand enucleation. If the iris prolapse, is not wounded, and there is reason to believe it does not carry infection, it may be dressed and eserine instilled if the wound be peripheral, atropia if central. If these conditions are present a free iridectomy should be done, great care being taken to free the wound of iris and shreds of tissue, atropia instilled and a light dressing applied. Burns of the cornea are treated the same as those of the conjunctiva.

*Wounds of the Iris.*—Contusions may produce a separation of the iris from its attachment forming an iridodialysis, or radiating lacerations. Hemorrhage may be profuse. This blood usually disappears in three or four days and efforts at its immediate removal are of no avail. The inflammation should be combated, rest in bed with a light bandage, atropia having been instilled if iridodialysis be present, but is contraindicated in radiating lacerations as the fibres would be the more separated. A prolapse of the iris if seen early is not necessarily serious. A clean iridectomy with a well approximated corneal wound generally gives a good result. It may be that such a case is not seen by the surgeon till after adhesions have formed between the prolapsed iris and the edges of the wound. As serious trouble may follow such a condition, as increased tension, inflammation, or even sympathetic irritation, every effort should be made to free the iris. If not of too long standing the wound may be re-opened and a free iridectomy done. If, however, this is impossible, the iris may be freed later with a broad needle or keratome. The farther the incarceration from the pupillary border the greater the danger. These serious complications are by no means constant, however. A prolapse may disappear to such an extent as to be cosmetically unobjectionable and remain perfectly quiescent.

*Wounds of the Ciliary Body*, formerly considered an absolute indication for enucleation, are, perhaps, the most interesting, and tax the judgment of the surgeon more than wounds in any other region. Positive therapeutic teachings regarding wounds in this region cannot be given. In general terms, however, a clean wound without prolapse of the uvea and without loss of much vitreus will heal kindly, while in cases presenting a ragged wound full of iris and ciliary body with sclera collapsed will require enucleation. The danger is not entirely in the wound itself, but they are prone to lead to recurrent cyclitis, glaucoma, or sympathetic inflammation. Many cases make a good recovery only to return later with a more serious condition, perhaps, requiring enucleation. If an attempt be made to save the eye a stitch should be passed through the superficial layers of the sclera, and the measures above indicated to combat inflammation vigorously employed. If the adjacent parts prolapse it may be impossible to introduce a stitch.

*Wounds of the Sclerotic* are chiefly of importance when they involve all the tunics. All perforations, however slight, are to be considered as serious. The reason is, there is always danger of infection; therefore the prognosis must be guarded. The symptoms of perforation are: (1) Diminution of the intraocular tension; (2) If anterior absence of anterior chamber; (3) If wound be large prolapse of adjacent parts. If the loss of the vitreus is not great and wound probably not infected, after washing a suture should be passed through the superficial layers and left in place about a week, that is, if there are no indications for removal. A light bandage and rest in bed will be necessary until the wound unites.

*Wounds of the Crystalline Lens* generally result in a traumatic cataract, a subject far too extensive to be more than hinted at here. If the lens swells atropia should be instilled to get the iris out of the way and give the smaller lens all possible room. Too great increase in tension is to be met by paracentesis or linear extraction. In many such cases absorption will be complete.

## WOUNDS COMPLICATED BY THE PRESENCE OF A FOREIGN BODY.

*Foreign Bodies in the Conjunctiva.*—These are common, but fortunately are easily and painlessly removed after cocainization. The predilection which these bodies have for the fold of transition from the upper to the lower lid, and the subtarsal groove of the upper lid should be borne in mind. The conjunctiva is often perforated by the foreign body and is sometimes only to be removed by snipping them out with a bit of conjunctiva. The subsequent treatment is that of a simple conjunctival wound. Should one lodge in the superior sulcus it may remain quiescent, but is likely to manifest itself by causing a chronic conjunctivitis.

*Foreign Bodies in the Cornea.*—In no class of cases, perhaps, has cocaine relieved more suffering than in the removal of foreign bodies from the cornea. Such cases are very common and though formerly difficult of removal are now comparatively simple. A spud or needle in many cases will suffice. The surrounding epithelium is destroyed but soon regenerates unless infected. Great care should be exercised to leave a smooth surface as fragments of tissue are prone to degenerate and may lead to ulceration. A simple procedure suggested by DOCTOR M. W. ZIMMERMAN, of Philadelphia, will greatly facilitate the detection of small bodies. It consists in thoroughly drying the cornea with a cotton-armed probe, when otherwise invisible particles may be easily seen and removed. An alkaline solution of fluorescin which stains the denuded surface green often brings to view a small speck which otherwise might have escaped detection. When the body enters beyond Bowman's membrane its removal may be most difficult. A clean incision through the membrane will often enable removal with the least loss of tissue. If perforation occurs, or if a needle-shaped foreign body has perforated, the introduction of a broad needle to offer support or push back the foreign body will facilitate its removal.

*Foreign Bodies in the Iris.*—This accident is exceedingly rare. The corneal wound usually closes at once, and the particle can be seen on or imbedded in the iris. Unless promptly removed an iritis may be excited, and if the body be a carrier of infection the loss of the eye may follow. They should be removed through a corneal wound with or without iridectomy as the body is imbedded or not. I have seen two such cases—one a small bit of wood, the other a particle of steel. Both were removed, the latter with a portion of the iris, a good result following in both cases.

*Foreign Bodies in the Crystalline Lens* is probably the rarest of the injuries under consideration. For anatomical reason they do not lead to suppuration. In most cases a traumatic cataract follows and some form of extraction will be necessary. I have seen one such case in the service of DOCTOR EDWARD JACKSON, surgeon to Wills' Hospital, Philadelphia, reported in the May number of *The Ophthalmic Record:*

December 8, 1892: J. W., aged forty-two years. Three weeks ago he was struck in the right eye by a flying piece of steel, followed by inflammation and failing vision. Now hyperemia of bulbar and tarsal conjunctiva, central macula, pupil 4 m. m., reacts to light and accommodation. Ophthalmoscopic examination: Right eye—Slight line of opacity in the lower anterior cortex, from just below center of pupil outward and slightly downward. From about the center of the lens, where foreign body is plainly seen, running backward and slightly upward is an opaque line apparently not reaching the posterior capsule; haziness in direction of principal section of lens. Disc red and hazy; vitreus clear; fundus normal. Refraction—Low astigmatism apparently mixed.

December 31: Right eye vision $\frac{20}{100}$. Decided increase in lens opacity.

February 28: Admitted to house.

March 3: Lens containing foreign body extracted.

March 4: During night iris prolapsed. Reduced by the house surgeon, but was again prolapsed in the morning. In forty-eight hours occupied whole length of wound.

March 22: Prolapse beginning to contract.

April 22: Ophthalmometer gives about 20s astigmatism; axis 180°.

April 29: Opthalmometer gives 10s; axis 180°.

May 6: Opthalmometer gives 9s; axis 5°.

August 3: Vision w. + 10s = 15c; axis 180° = $\frac{5}{5}$.

This case not only shows the course of a foreign body in the lens, but what nature will do for a prolapsed iris. The ultimate result remains to be seen.

*Foreign Bodies in the Vitreous Chamber* is a subject furnishing abundant material for a lengthly paper. It is most often seen in metal workers. More rarely particles of glass or wood find lodgment here. As nearly all eyes with a foreign body in the vitreus are doomed to destruction, the accident is a most serious one, deserving very careful study. In general, then, what is considered the best mode of treatment?

If a diagnosis of foreign body in the vitreous chamber can be made an attempt should always be made at its removal. If not metallic, a scoop or forceps may be used. If steel, the electromagnet offers the best means at our disposal. The use of this instrument, however, is not attended by the universal success that purely theoretical considerations would lead one to expect. The vitreus is generally too full of blood to permit of locating the body, and the instrument has to be used more or less at random, resulting in some traumatism. Some brilliant results have followed its use, however, particularly where the body entered through the sclera and is not deep. Cases are on record where the body was taken from the retina or even imbedded in the retina. Such cases are so serious that if steel be present the use of the magnet is always justifiable. The course to pursue in case a failure follows all attempts at removal is still undecided. While nearly all reports show ultimate destruction of the organ, the loss of an eye is so serious conservatism is usually enforced. If the case can be watched this course may be followed, otherwise immediate enucleation seems to be indicated.

I have seen four cases in which the electromagnet was used. In two cases the body was not found, and one of the two where it was found went into panophthalmitis. One of the unsuccessful cases, returned several months later and had his eye enucleated when the piece of steel was found imbedded in the orbit, having passed through the eyeball. The one success has the following history:

October 5, 1893: C. W., aged nineteen years. Twenty minutes before admission to hospital patient was struck in the left eye with a small piece of steel. Examination showed a small horizontal wound at insertion of internal rectus; eye slightly injected; no pain. On examining the eye with the ophthalmoscope I could plainly see a foreign body with metallic lustre at the bottom of the globe, back of equator, and a little to inner side of median line. DOCTOR EDWARD JACKSON was sent for and in about an hour after the accident occurred, enlarged the wound, inserted the magnet, and made two unsuccessful attempts at removal. A Grafé knife was then used to divide the vitreus. A third attempt proved successful. No click was heard. A scar on the retina could be plainly seen and a small detachment. Vision, at first good, gradually decreased till fingers only could be counted. At the end of two weeks vision had improved to $\frac{5}{200}$. On the twentieth day patient had vision of $\frac{25}{200}$.

Another case of interest has the following history:

May 31, 1893: D. M., aged twenty-three years. Admitted to house with beer-bottle wound of brow, lid and eyeball. Wound of the eye through outer limbus about three-eighths of an inch long. Ciliary body and iris prolapsed. T— ; cornea collapsed. Though examined in the dark room by two surgeons no foreign body was found. Enucleation was advised, but patient wanted to consult friends. The wounds in brow and lid were dressed, bandage applied and patient put to bed. After consulting friends enucleation was still refused. It was then decided to try to save the eye. On removing the bandage I saw what I thought was a prolapse of vitreus, but what was a piece of glass, triangular in shape, about one-fourth of an inch on each side. This had worked out of the vitreous body. It was easily removed and all the methods for combating inflammation were enforced. Patient gradually improved till on June 25 the swelling of lid was nearly gone; prolapse much decreased; vision $\frac{25}{200}$. On March 28, 1894, eight months later, the wound had flattened to level of sclera, and there was no irritation; vision, $\frac{25}{100}$. The ultimate result, of coarse, still remains to be seen.

# PLACENTA PREVIA.*

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You have done me great honor in inviting me, through your president, to address you upon a subject which is as old as the human race, namely, the subject of placenta previa. Since women began bearing children placenta previa has been known. Never up to this time has there existed a doctor who has not dreaded inexpressibly to encounter this terrible complication of the lying-in room. I have never yet seen a physician who looks with pleasurable anticipation upon the management of placenta previa.

Much has been written and taught upon this subject. The resources of the obstetrician have been taxed in all ages to the utmost to contribute some new line of management to these cases in the hope that this greatest dread of the obstetrician might be obliterated.

Placenta previa occurs with frequency. It may be placed in round numbers at about once in five hundred cases of confinement. One author places it as often as once in three hundred and fifty-seven cases. Three authors respectively at once in seven hundred and twenty, seven hundred and fifty, and seven hundred and ninety cases. I think it might be safely stated that about once in five hundred cases it is encountered.

## II.—STATISTICS.

Zimin, of Moscow, constructed statistics of reports of sixteen Russian lying-in homes for the period from 1845 to 1890. Placenta previa occurred three hundred and sixteen times out of one hundred and seventeen thousand eight hundred and ninety-seven labors. It occurred eight times as frequently in multiparas as in primiparas. It occurred most frequently in women between thirty-five and forty-five years of age. Hard-working women seem to be especially liable to it.

Lateral placenta previa occurs three times as frequently as the central placenta previa. Labor sets in most frequently in the tenth lunar month, then in the ninth and eighth. Head presentation occurred in seventy-five per cent. of all cases, breech and transverse presentation occurring each in twelve and one-half per cent. of all cases. The mortality in this enormous number of records was eighteen per cent. of mothers and sixty-three per cent. of the infants.

## III.—CAUSATION.

Conception occurs in the fallopian tubes in the vast majority of instances and gradually the new creature works its way towards the *cavum uteri*. When

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*Read before the Grand River Valley Medical Society, at Holland, Michigan, August 13, 1894.

just within this space, at one side or the other of the tubal opening, it attaches itself to the endometrium. Only in exceptional cases is this attachment effected lower down in what is called the lower or dilating or retracting segment of the uterus. It has been asserted that a placenta previa is an arrested abortion, the claim being made that just before the ovum is cast off it finds lodgment in the lower segment of the uterus. No satisfactory explanation of this migration of the ovum to such an abnormal lodgment has ever been given. It has been attempted to maintain that in the changed conditions of the endometrium, as from chronic endometritis, or in cases of multipara, we have the exception of the unusual locus of the placental attachment, for it is a simple clinical fact that this complication is met with chiefly in women who have borne several children. The human ovum can graft only on a surface denuded of its epithelium, and we know furthermore that the epithelium of the endometrium is removed by the process of menstruation. The reason that it does not graft itself upon the fallopian tube more often, thus giving us tubal pregnancies as a rule instead of the exception, is because the tubal epithelium is not removed by the process of menstruation. Therefore, the hypothesis can be maintained that the ovum will not find lodgment in a diseased endometrium until it has found connective tissue surface low down in the uterine cavity after which some form of placenta previa will occur.

## IV.—VARIETIES.

Three different varieties of placenta previa are recognized. The first is called *placenta previa centralis.* It is that variety of placenta previa in which the center of the placenta so nearly coincides with the os uteri internum that when we have full dilatation of the cervix the placenta can be felt through the cervical canal.

The next variety is the *placenta previa cervicalis,* which is that form of placenta previa in which the implantation of the placenta extends to the os uteri internum but not over it.

The third variety is the *placenta previa partialis,* and it is that variety in which after full dilatation of the cervix a portion of the membrane can be felt as well as the placenta.

From this enumeration of the varieties of placenta previa it will at once be recognized that the danger is greatest with the first variety, less with the second, and least of all with the third.

## V.—SOURCE OF THE HEMORRHAGE.

The lower part of the uterus from which the hemorrhage arises derives its blood supply mainly from a branch of the uterine artery which first passes through the retracting portion of this organ. The lower segment of the uterus is abundantly supplied with veins in cases of placenta previa. When the placenta becomes separated from the lower uterine segment the thin-walled, large maternal vessels are torn across and nothing interferes with the free outflow of blood. So long as these vessels, which are easily compressible, are free from pressure, the hemorrhage will continue at an alarming rate. As soon as pressure is brought to bear upon them, either by the descending fetus, or by intracervical distention, or by a distensible bag, or by vagina tamponade, the hemorrhage will be arrested. If this one point be always kept in mind it will be easy to supply the remedy necessary to save the woman from death by hemorrhage when that is possible.

## VI.—CLINICAL HISTORY.

A case of placenta previa manifests itself, as a rule, in the last ninety days of pregnancy. In some cases in the seventh month, in others at the eighth, in still others in the last few days only of gestation. The hemorrhage appears abruptly, often without apparent causation, sometimes during sleep at night. It comes without warning and varies from a small amount up to a fatal abstraction. There is no rule for the time for it to appear during these three months, nor for the amount of blood that is lost. Sometimes it will be found that a woman will have an alarming hemorrhage which will cease spontaneously, to be followed by days and rarely by weeks of freedom from any further loss. Then, again, there will be repeated hemorrhages within twenty-four hours. The patient suffers according to the amount of blood lost. If it be small there is no apparent change in her condition. It may be so large as to cause syncope and even a fatal collapse before succor arrives.

## VII.—TREATMENT.

It is now an accepted maxim that at the occurrence of the first hemorrhage is the time to act. When the diagnosis of placenta previa is made from the first onset of hemorrhage the physician should decide upon the course of immediate treatment, and he should not let the patient pass from his observation until she is delivered. Delay is inadmissible. The sentimental hope of saving the child without any active interference in the delivery of the mother only too often results in the sacrifice of both lives. It is more reasonable to suppose that a premature child can be raised more successfully by promptly interfering in behalf of the mother than to permit the case to progress until her strength has survived a loss by delay in which her chances for nursing the child have been irretrievably ruined by an enormous loss of blood.

As soon as the diagnosis of placenta previa has been made the obstetrician should at once ascertain the extent of the cervical dilatation. If the cervix be closed the vagina should at once be rendered aseptic and the tampon employed. In place of the colpeurynter, iodoform gauze may be used. It is important that we know how to apply this correctly. To this end a Sims' speculum should be employed with the patient in the Sims' position. A long strip of gauze should be carried up and packed into and then tightly against, first one side and then the other, of the cervix until uniform and complete pressure is made. The entire vagina should be packed with gauze. It should not be enough to distend the vulva but it should extend well down to the vaginal orifice. At the end of a few hours, six to twelve, the tampon should be removed and an antiseptic vaginal irrigation thoroughly employed. This irrigation may consist of corrosive sublimate solution 1–5000 or even 1–3000, or a saturated solution of boric acid can be used.

If the cervix be not sufficiently dilated by this time to admit two fingers, another tampon should be used and allowed to remain from four to eight hours. In most cases dilatation will then have progressed sufficiently to admit two fingers. Complete antisepsis is demanded of the obstetrician at this point. A limited amount of deferential bowing to the goddess of cleanliness will never answer in these cases. As much thoroughness is demanded as in dealing with laparotomies.

I may perhaps be excused for digressing to the extent of recommending the following for rendering the hands aseptic for this procedure. We will say that the patient was tamponed eight hours previously. During this time the obstetrician can supply himself with the necessary green soap to thoroughly wash his hands and arms. The soap is rubbed well into the hands and arms to the elbows. A stiff brush with hot water should be used for at least ten minutes, going over the skin of the arms, of the folds and wrinkles of the hands, around the nails and their matrices most thoroughly. He should then thoroughly wash his hands and arms in a solution of 1–500 corrosive sublimate in water sterilized by previous boiling, afterwards absolute alcohol should be used for at least ten minutes or longer before the antiseptic preparation can be considered completed. The bowl containing the water should have been made thoroughly aseptic. The towels that he uses should have been sterilized by dry heat. The pubes and the vulva should be most thoroughly cleansed by the same process used for the hands and arms. It is not necessary to either shave or clip the hair. If the hair on the arms of the physician can be rendered aseptic for intrauterine manipulations the pubic and vulva hair can certainly be made as clean. The legs of the patient should be wrapped in sterilized towels. The obstetrician should wear a clean apron or sterilized bed-sheet pinned in front of him. With the patient brought to the edge of the bed, an assistant holding each leg and avoiding contact with the physician's hands and arms, everything is now in readiness for the removal of the tampon. A rubber sheet having been placed under the patient previously and a receptacle under the edge of the bed, the tampon can now be removed. The rectum and bladder having been emptied, the patient well anesthetized by this time, the physicians two fingers are introduced into the cervix. If the placenta be implanted over the os, it should be pushed aside if possible to facilitate further manipulations.

We should then proceed to carry out the instructions so vigorously and impressively given by Schroeder, "To rupture the membrane and bring down a foot." If it be a breech presentation, this will be a simple matter. If a head presentation then version should be quickly performed by the Braxton Hicks method and an extremity brought down into the vagina. The rest can be left to nature if the pains are satisfactory. If they are not vigorous, slight traction can be made on the foot sufficient to check hemorrhage. The body of the child acts as a most efficient tampon affording the one essential means of checking hemorrhage. If in the attempt at turning by the Braxton Hicks method there be a tetanic uterine spasm present an anesthetic is indispensable. It is not unimportant to know which anesthetic to employ. Ether is too slow in its action. Chloroform is much more rapid, but nitrous oxide gas is the best if available.

I know of no experience so trying to the courage of a physician as the mar agement of turning, under these circumstances.

No position in the obstetrician's life tries his nerve more thoroughly tha when, with his right hand he is searching for the desired leg and the blood flov in torrents from the uterus down his arm and off his elbow in a continuou stream.

Before he succeeds in the turning the cramp of his hand and arm resulting from the pressure may lead him to fear that the patient will die of hemorrhage before he is able to bring down a foot. It is no time at this juncture to be filled with fear or misgiving. While observing a gentleness and persistence sufficient to be effective he must avoid violence lest he do any unnecessary or unjustifiable damage. When the leg is brought down attempts at rapid extraction are not to be made for fear of rupturing the lower uterine segment. After bringing down the foot we may leave the case to nature's efforts for a while.

**Lomer**, in *The British Medical Journal*, of December 5, 1891, reports a case of death from rupture of the uterus. Two hours after version violent pains set in, when the child was expelled spontaneously as far as the navel and the uterus ruptured. The laceration began apparently at the placental site and extended transversely, nearly separating the uterus from the vagina.

If when we are first called to a case of placenta previa dilitation is well on the way, and the cervix be soft and easily dilatable so as to admit the forceps without danger of rupturing, we may proceed to deliver without delay. Occasionally it will be found that some rigidity of the cervix obtains; we use the tampon and upon its removal, at the end of a few hours, we find that although pains have been regular, no dilatation is obtained, and we again tampon and wait. If we then find that no dilatation has occurred and that the condition of the patient is of serious moment we may proceed to dilate with the fingers with the aid of a small stream of hot water against the cervix. It will very often be found that the pursuasion of the fingers and of the hot water will dilate the os rapidly. We can then do one of two things—first proceed to complete dilatation and speedy delivery with forceps, or we can perform version and bring down a leg and then wait awhile.

So many factors enter into the condition of the various cases that we will find ourselves sorely tried to know which is the best course. When once we have decided whether it shall be version and bringing down a leg to serve as a tampon, or whether we shall proced to deliver with the forceps, we should act with great celerity and firmness, yet with gentleness.

Often it will be found in our manipulations that complete syncope will occur. The patient will become pulseless at the wrist, extremely pale, and to all appearances will be dead. In such cases we have but one thing to do, and that is to deliver with all possible celerity. If it be simply syncope and not sudden death, we are thus favored by nature's method of arresting the homorrhage. With the uterus evacuated and uncontracted we can see that upon the heart's resuming its function again free bleeding must occur unless we secure uterine contractions? One of the best ways to secure the return of the action of the heart, especially if the patient be anesthetized when the syncope occurs, will be to forcibly dilate the rectum. Hypodermics of glonoin and digitalis can be used later. **Credé's** method of promoting uterine contraction can be employed. Ice quickly applied to the sacrum will also promote uterine contractions. The tampon will arrest the hemorrhage more or less completely. It will determine labor within twelve hours after its application. During labor it increases the force of the contractions in most cases. It is painful, causing disuria and tenesmus, but ordinarily these pains are tolerable. During labor I believe the tampon to be the best means of arresting hemorrhage until dilatation is sufficient for labor to progress normally.

After version the next most important measure is stimulation. Great blood losses produce the most frightful results. Upon reaching our patient we generally find her suffering from severe hemorrhage. Immediate action is imperative. After tamponing tightly if immediate delivery be impossible, the patient's general condition demands our most active care. If she has lost so much blood that she is restless—one of the extreme symptoms of hemorrhage—she should at once receive ether hypodermically. We can then use subcutaneous saline transfusion, with an improvised apparatus consisting of a small tin funnel, a piece of rubber tubing and an aspirator needle. Boiled water cooled down to 100° Fahrenheit can be used. Sterilization of the apparatus is easily accomplished. One drachm of salt to the pint of water constitutes the fluid. The tissue selected is the infraclavicular space. A pint of water can be absorbed in a very few minutes. The volume of fluid in the maternal circulatory apparatus can then speedily be increased. It is an excellent plan to make use of subcutaneous saline transfusion as a routine measure in all cases of placenta previa in order to anticipate serious indications which may not exist at the time of transfusion.

Another method of supplying blood to the vital centres in extreme cases is autotransfusion which consists of bandaging the extremities from their tips to the body. An increase of the maternal blood can thus be secured sufficient sometimes to turn the scales in the patient's favor.

After delivery post-partum hemorrhage is to be anticipated. When it occurs we must determine whether it arises from the interior of the uterus or from a lacerated cervix. If it arise from the endometrium we must at once check it with pressure from an intrauterine tampon and the exhibition of ergot.

## VIII.—ITEMS.

Kramer (*Zeit. f. Geb. u. Gyn.*, September 1, 1888) reports a case of sudden death from air embolism, wherein version had just been completed, which was followed by a uterine contraction and a contraction of the abdominal muscles and immediate demise.

Fitzpatrick (*London Lancet*, April 1889) relates a remarkable case of recurrence of placenta previa in five consecutive pregnancies. Her four first pregnancies were without event. The next five were all cases of placenta previa. The first two of this group were followed by post-partum hemorrhages.

Spencer (*Montreal Medical Journal*, October, 1889) read a paper on the "Diagnosis of Placenta Previa by Abdominal Palpation" before the London Obstetrical Society, in which the claim was made that such diagnosis could be made. In the discussion which followed Braxton Hicks and Robert Barnes agreed with the speaker, while Matthews Duncan asserted that diagnosis of the healthy placenta during pregnancy by palpation is impossible. Disagreement by such eminent men on such a topic is worthy of a place among these items.

Twenty years ago Professor R. Beverly Cole, of San Francisco, recommended in cases of placenta previa the use of a large piece of solid alum up against the os, maintaining it in close contact with a vaginal tampon. He termed it the "alum plug." Its astringent properties produce hardening and contraction of the uterine fibres in the lower uterine segment, and cause a thrombus in the sinuses. It does not prevent dilatation. Its use has checked hemorrhage and permitted labor to continue without it until the necessary obstetric operation could be performed.

**Schwartz** (*Der Frauenarzt*, Berlin, Number XXII, 1891) reports a fatal case in which the cause of the anomaly was found to be a bicornuate uterus.

**Wilmer Brinton** (*Maryland Medical Journal*, January, 1892) reports a twin pregnancy complicated with placenta previa in which both children were born alive but died in seven hours. The woman recovered and developed a phlegmasia alba dolens on the eighth day.

**Berry Hart** (*Congr. Internat. De Gynecol.*, Brussels, September, 1892) recommended, if delivery be followed by hemorrhage, the intrauterine injection of hot water containing iodine or carbolic acid, or if there be persistent hemorrhage, perchloride of iron.

**Dew** (*Medical Brief*, March, 1892) used the tampon in a case of placenta previa with prolapse of the cord. The child died but the mother recovered.

## TUBERCULAR MENINGITIS.*

By F. B. FLORENTINE, M. D., Saginaw, Michigan.

[published in The Physician and Surgeon exclusively]

On November 17, 1891, I was called in consultation by William F., of this city, to consult with Doctor Small, regarding his little daughter, aged six years, who had already been seriously sick about three weeks. The doctor informed me that, judging from the symptoms as noted during the daily clinical observation of his patient since the commencement of the disease, such as the characteristic continuous fever with absence of marked remissions, gurgling and iliac tenderness, severe headaches, nose-bleed, tympanites, et cetera, he had naturally diagnosed the case as one of typhoid fever, which diagnosis I found to be undoubtedly correct, after making a careful examination of the patient, and availing myself of the clinical history of the case as narrated by the doctor. The day following the consultation I was asked by William F. to take charge of the patient, but declined to do so on the ground that the attending physician was properly treating the patient; besides, I did not consider it becoming in me to take charge of a patient so soon after having consulted with the attending physician. However, as we know, people under such circumstances are often willing to make a poor change of doctors.

On December 1, following, I was again summoned by Mr. F. to take charge of the case, he informing me at the same time that he had already discharged his attending physician; therefore, leaving further modesty aside, I consented to take charge of the case. I found the little patient about the same as when I had seen her the day that I consulted with Doctor Small, nearly two weeks previous, except, of course, that she was much more emaciated as a natural consequence of the disease. Her fever, too, was perceptibly abating, in fact so much that by the 5th of December it had nearly altogether left her.

From this time on, after a severe illness of nearly six weeks, the disease assumed a different aspect. The child seemed to suffer from more severe pains in the head than she had heretofore, at spells for a day or two, and would again be comparatively free for as long a period. She would also have vomiting attacks without any apparent cause. The power of motion of her right arm and hand became much impaired; slight, twitching of the muscles of the right side of her face occasionally; inequality of the pupils; very slight or no fever; insomnia; and towards the latter part of the month much sighing respiration, and increased twitching of the muscles of the right side, especially her arm, the latter becoming quite rigidly contracted. Her pulse became very feeble and irregular, and the 1st of January, 1892, she passed into complete coma and remained so for nine days. During this time I resorted to rectal alimentation. On the ninth day she gradually roused from her profound slumber and appeared very much exhausted, but from that time on her former symptoms gradually abated, however, somewhat in an irregular way. She would be getting along quite well for two or three days and then suddenly become worse again. Finally, the period of improvement predominated over that of the bad symptoms, and I discharged her the 20th of February, 1892, comparatively well, but not normally healthy. She was able to resume her school duties and seemed to get along nicely with her studies, but after all there remained a peculiar gait and a strange appearance of her eyes that attracted the attention of the most casual observer.

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* Read before the Saginaw Medical Society, June 5, 1894.

On February 26, 1894, two years after the first attack, I was called again to see KATIE F. Upon my arrival at the house I was suddenly reminded of that peculiar look and carriage that I noticed two years previous when I discharged her from my care. She was apparently not very sick, except that she would have spells of vomiting occasionally. Thinking that it was simply a slight functional disturbance of the stomach, I prescribed a little subnitrate of bismuth and oxalate of cerium, and left with instructions to report to me in two or three days at my office. She was reported to be about the same until the 11th of March, and from that time until the 30th there was no report made to me of the case, but on the latter date I was again summoned to see the little patient. This time I found her in bed very sick, her head buried on her pillow presumably avoiding light; pulse 112; temperature 102°; frequent vomiting, and sharp lancinating pains in her head, recurring from time to time, she often crying, "Oh! my head." She kept getting from bad to worse until the 3d day of April, when DOCTOR WILLIAMSON was called in to consult with me. The doctor asked me if she ever had such spells before, and when I informed him that she had, he immediately told the family that it was a hopeless case. The following two or three days she improved so much, however, that her friends had hope of her recovery, but all at once she again suddenly became very sick, with her usual symptoms, and remained so for a couple of days, when she would improve; in fact, from the 9th until the 12th she felt so well that she would talk cheerfully and even sing. From this time she again got worse and died the 15th day of April of apnea and asthenia.

I have given a brief clinical history of the case and I leave it to be decided whether or not the child died of tubercular meningitis. For my part, being aware that tuberculosis is hereditary in the family, as I have myself attended four of her great aunts who have died with consumption, and also an aunt who died from tubercular trouble, as well as her grandmother; and also judging from the general behavior of the disease during both of her spells, I am quite convinced that I lost my little patient from the effects of tubercular meningitis.

# APPENDICITIS FROM A MEDICAL STAND-POINT.*

BY HENRY KREMERS, M. D., HOLLAND, MICHIGAN.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

APPENDICITIS is receiving considerable attention, both from a medical and from a surgical stand-point, and as the profession is not united regarding the best procedure in the treatment of this disease, I believe you will all admit that we can profitably spend a short time in discussing the subject. The medical journals are replete with articles on appendicitis. The medical societies, both local and national are constantly discussing it, and I do not expect to advance any new ideas, my object in presenting this paper being to elicit the views of the members in the discussion which is to follow.

You will all agree with me that the physician should know what to do when he meets the disease, as the vast majority of patients will seek his advice in preference to the surgeon. Twenty years ago when I was a medical student I never heard the subject discussed under its present name. It was either typhlitis, a catarrh of the cecum, characterized by pain, tenderness, constipation, and vomiting; or, perityphlitis, which was defined as an acute inflammation of the connective tissue around the cecum, tending to the formation of an abscess, accompanied with pain, swelling, and fever. At that time it was classed and treated as belonging entirely to the medical category of pathology. At present, however, an inflammatory affection occuring in the neighborhood of the cecum is termed appendicitis, and, as in the vast majority of cases, it is claimed, the disease is primarily due to an inflammation, ulceration, gangrene, or perforation of the appendix vermiformis, it is therefore relegated to the surgeon.

I cannot concede that every case of appendicitis should belong to the surgeon, nor that every case should be subjected to operation. If we could make our diagnosis between a simple catharral trouble, and the acute inflammation which leads to suppuration, there would be no question as to whom the case should belong, but I am sorry to say that the profession is not yet able to make the distinctive diagnosis. The literature on the subject during the past few years has been very extensive and very interesting, but I cannot help remarking on the divergence of opinion regarding the medical and surgical measures advocated. Not only do physicians and surgeon differ, but of those who advocate medical treatment some recommend opium and rest while others advise saline cathartics.

Statistics prove but little and are unsatisfactory as indicating the best procedure, as both medical and surgical advocates claim about the same ratio of cures. Undoubtedly cases are lost by performing the operation too late; and on the other hand cases that are operated on would have recovered without the operation.

The cause of appendicitis is said, in the majority of cases, to be mechanical, the inflammation usually resulting from the lodgment of foreign bodies, as hardened feces, in the appendix. Hardened feces lodge in the cecum and cause inflammation which may extend to the surrounding tissue. The appendix may be united or bear on itself and thus cause obstruction. Inflammation in the appendix may cause obstruction and result in ulceration or perforation of the pouch. It has been called an American disease and is said to be more frequent with us because of our habit of rapid eating, this deplorable custom precluding thorough mastication, facilitating the swallowing of seeds, et cetera, and predisposing to indigestion, constipation, and the accumulation of feces in the cecum, which results in catarrh of the cecum and appendix.

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* Read before the GRAND RIVER VALLEY MEDICAL SOCIETY, at Holland Michigan, August 13, 1894.

As already stated, to make a correct diagnosis at the beginning of the disease is very difficult. The inflammation of the appendix may either be of the simple catarrhal or of the ulcerative variety. The best authorities state that it is clinically impossible to classify or to diagnose catarrhal inflammation, but if it passes on to ulceration, local peritonitis, or perforation, the diagnosis can be made. In making our diagnosis we should exclude chronic constipation or suspected feces in the cecum, as this may cause pain and simulate appendicitis.

I will not describe the symptoms, as all of us must be more or less familiar with them from recent writings, or discussions in medical circles.

As to treatment. In an experience of eighteen years I have seen several cases where the symptoms all indicated appendicitis. There was the sudden severe pain in the right iliac region, tenderness on pressure, the hardening or induration, nausea, vomiting, fever, et cetera. I have treated my cases medically, given mild laxatives and enemata in the beginning, keeping the patients at rest, and controling the pain by opium, and all have recovered. I have seen two cases in consultation which ended fatally, but they might have recovered through surgical interference. We all know we can have inflammation in any part of the body without the formation of enough pus to do any harm, and I believe the physician is justified in waiting (unless a positive diagnosis of ulceration or perforation can be made) and using such means as will allay or modify the inflammation. In the majority of cases the patient will object to an operation and will insist that medical treatment be employed. I know that in some cases such a request is dangerous, but what shall we do? We are all anxious to keep and cure our patients. If we insist on an operation the case is apt to pass into the hands of another physician. I am not opposed to an operation when the patient is willing, provided it is considered the proper procedure. When pus has formed, an operation is not only indicated but absolutely necessary, and when performed by a skillful surgeon will give the patient a far better chance of recovery than when nature is left to combat the disease.

## A CLINICAL NOTE ON THE MANAGEMENT OF DIPHTHERIA.

By T. J. McGILLICUDDY, M. D., New York City.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

After an experience of several years with diphtheria, during which time I had used sulphurous acid, muriatic acid and honey, chlorate of potash, iron, quinine, et cetera, with fair success, I think I have at length found an agent which is thoroughly to be relied upon, one which has at all events reduced my death-rate in diphtheria to *nil* practically. In some cases I was not called in until no human means could prevent a fatal ending to the disease, but in no single case in which I saw the patient while there was yet the slightest chance of his recovery did the remedy of which I am about to write, fail. I was called in consultation in one particular case in which the attending physician expressed his belief that it would be impossible for the patient to live until night, and yet under this method of treatment the membrane rapidly separated and was expelled and the patient's recovery was very satisfactory.

The method of treatment which I have followed out with such entire satisfaction, was by kretol, a preparation which has been recently introduced to the profession. The patient's throat was very frequently and very freely swabbed with a twenty per cent. solution of kretol, and in the intervals between the swabbings an emulsion of the same strength was used as a spray, while a teaspoonful of a two per cent. solution was given every two hours internally. Under this treatment, with due attention to the complications which arose, every patient of mine has done well, and as I have said above, my death-rate from diphtheria has been practically reduced to *nil*. Kretol is a very powerful and reliable antiseptic, astringent, detergent, and analgesic, and its soapy character adds considerably to its cleansing properties. It has the advantage over other antiseptics in being non-poisonous, non-corrosive and readily miscible with water.

# CORRESPONDENCE.

## LEIPSIC LETTER.

By COLLINS H. JOHNSTON, A. M., M. D., Grand Rapids, Michigan.

EIGHTH PAPER.

### THE STUDY OF BACTERIOLOGY.

One cannot attend German clinics long without seeing the strong hold which bacteriology has upon the thought and imagination of the German medical profession, and the majority of foreigners who remain here any length of time, and who have not already done more or less bacteriological work at home, soon begin to enquire for the best place to study bacteriology. The most popular courses are those given in Heidelberg, Tubingen, and Berlin. The ground covered by each is about the same, but the Berlin course attracts the most physicians as it is the oldest and best known, having been started by Robert Koch, nine years ago. It is still held in Koch's old laboratory in the Hygienic Institute, where many of the leading bacteriologists of the world have pursued this fascinating study, and where Koch discovered tuberculin four years ago. At that time he resigned his position as professor in the University and director of the Hygienic Institute, in order to devote all of his time to scientific work. He was then made honorary professor in the University of Berlin, and placed in charge of the Infectious Institute which is on the grounds of Charity Hospital with its one thousand eight hundred beds, and where he has a large amount of clinical material at his disposal. He is still at work upon the preventive and curative inoculation of tuberculosis and other infectious diseases, but the persons who are permitted to penetrate the mysteries of his private laboratory are very few. Koch's scientific reputation took a tremendous tumble four years ago, but the Germans take great pride in calling attention to the fact that it was one of their own number, Virchow, and not a foreigner, who first pointed out the fallacies of the tuberculin treatment. The Berlin medical profession reaped a rich harvest when the city was full of consumptives and doctors from all over the world, **Koch's** own profits being placed at one hundred and twenty-five thousand dollars. The courses in bacteriology are now given by **Günther**, one of **Koch's** former assistants, four or five times a year. Each course is of one month's duration, and takes up the entire day. **Günther** also gives a short course in the "Ferien" twice a year, consisting of twelve lessons of one and a half hours each. In it one is taught to stain and recognize several of the most important pathogenic bacteria, but the time is too short to learn much about the methods of carrying on practical bacteriological work.

It is only within the last ten or twelve years that bacteriology has attained the dignity of a science, and the knowledge which we have to-day of the part played by these minute vegetable organisms in the production of many diseases is largely due to the discovery of **Koch** in 1881 of a method of obtaining pure cultures of bacteria by means of the gelatin plates so universally used by bacteriologists. Since that time wonderful progress has been made. The parasitic origin of consumption, typhoid fever, diphtheria, cholera, gonorrhea, et cetera, has been definitely settled, and the results of experiments upon both animals and man, for the prevention and cure of some of these diseases has been such as to warrant the belief that the time is not far distant when such a system of inoculation will be perfected that we will be able to battle successfully with many diseases before which we now stand almost powerless.

## IMMUNITY FROM DISEASE.

The subject of immunity is one of the most interesting pertaining to bacteriology. Immunity can be a natural production, as that of a child after recovery from scarlet fever, or an artificial one, as that produced by inoculating a person with lymph from a case affected with small-pox. Although **Jenner** published his discovery almost one hundred years ago, we know nothing yet about the specific cause of small-pox, or the manner in which immunization takes place. But experiments have shown that animals can be rendered immune against many of the infectious diseases to which they are subject by inoculating them with a weakened culture of the bacteria which produce the disease, or with the chemical products of the bacilli which remain in a culture after the organisms are filtered out. It has been further domonstrated that the blood of an animal which has been thus artificially immunized contains properties which enable it to confer immunity upon other animals. Not only will the blood of an animal immunized against tetanus destroy the virus of tetanus in a test-tube, but it will also do it when injected into the body of an animal afflicted with tetanus, thus curing the patient. Several theories have been advanced to explain immunization. One is that of phagocytosis, which ascribes to the white blood corpuscles the power to seize and destroy bacteria. That the leucocytes as well as the serum of healthy blood has bactericidal properties is well known, but as the toxines of bacteria, as well as the organisms themselves, have the power to produce immunization. this theory is insufficient. The most rational explanation is that certain chemical agents or antitoxines, which have the power to prevent the further development of the bacteria and to destroy its specific ptomaines, are formed in the blood from the bacteria themselves or the tissues of the body under their influence. This is supposed to be the explanation of recovery from any infectious disease. These organisms enter the body and produce their specific poisons. If the individual is able to resist the disease long enough, the antitoxine is formed, and the patient recovers. In some diseases, as pneumonia, the antitoxine is formed suddenly and in large amounts, and a crisis is the result, although virulent pneumococci can be found in the lungs and sputum long afterward. In other diseases the opposing poison is formed more slowly, and recovery is more prolonged.

## THE PARASITIC ORIGIN OF DISEASE.

The proving of the parasitic origin of a disease is most exceedingly difficult. Not only must the suspected organism be constantly present in a given disease, and regularly absent in all others, but we must be able to cultivate the parasite artificially, to isolate it from all others, to propagate it through several generations, and to prove its pathogenicity by experiments upon animals. For this purpose a pure culture, removed by several generations from the original, must be used or it might be said that the animals inoculated were made ill by poisonous chemical substances removed from the patient's body with the parasites. If, then, by inoculating a susceptible animal with this pure culture the original disease is produced, and if we can cultivate the same organism from the tissues of these animals, the chain of evidence is conclusive that we have found the specific cause of the disease under investigation. In many diseases, however, no constant and exclusive variety of organism has yet been found, and in others although found, it has not yet been artificially cultivated. Most of the pathogenic organisms with which we are acquainted belong to the bacteria, the lowest form of vegetable life, which are usually so small, and whose bodies are so transparent that they cannot be seen unless previously stained by some artificial agent. In spite of the labors of many investigators to discover the specific cause of scarlet fever, whooping-cough, measels, small-pox, et cetera, no specific variety of bacteria has yet been found. These diseases are highly contagious, and reasoning from analogy permits of no doubt that they are infectious, that is, that they are caused by specific parasites, but it is questionable if these belong to the bacteria. It is thought they may belong to the protozoa, the lowest form of animal life, and for which methods of staining are still quite imperfect.

The protozoa will probably play a greater rôle in pathology in the future than in the past. Different investigators have already reported the finding of specific protozoa in whooping-cough, carcinoma, scarlet fever, et cetera, but in only two diseases has a causal relation been absolutely established between them and disease, namely, malaria and dysentery. In both of these the parasite happens to be large enough to be seen readily without staining. It has been impossible to cultivate either of these, however, artificially; yet malarial fever has been produced in a previously healthy individual by intravenous injection of the blood of a malarial patient, thus proving that the agent causing malaria exists in the blood of a person sick with the disease. When, now, it is considered that an independent organism is always found in the red blood corpuscles of a malarial patient, that it has a regular process of development which one can follow, and that it is never found in any other disease, it can hardly be doubted that in the "Laveran plasmodium" we have the true exciter of malarial fever.

Another difficulty which often presents itself to the investigator, is the finding of a susceptible animal upon which to experiment, for animals are not subject to many of the diseases which affect mankind. But **Koch** says the experience of the last few years has shown that we are entitled to consider a bacterium as pathogenic when it is found regularly and exclusively in a germ disease.

### THE TYPHOID BACILLUS.

**Eberth** was the first to describe the typhoid bacillus in 1880, although **Koch** discovered it at about the same time. They found it in the spleen and mesentery of patients who had died of typhoid fever. It was not obtained in a pure culture until 1884, and was not found in the stools of a patient until 1885. While it is maintained by a few that the bacillus can enter the body through the respiratory organs, it is highly probable that the only port of entry is through the alimentary canal. When we consider the probable universal distribution of the bacillus, and the fact that it can live three months in sterile water, thirty-five days in milk, three months or over in feces, and sixth months in the earth, and that it bears alternate freezing and thawing several times without injury, mankind cannot be considered very susceptible to the disease. Either an acquired predisposition on the part of the individual, or an especially virulent form of bacteria, or an unusually large amount of them, must be present to favor the development of the organisms. To prove this point a daring German bacteriologist has on several occasions, after due preparation, swallowed pure cultures of **Eberth**'s bacillus without injury.

Many cases of typhoid fever are now on record where the disease has been spread from case to case by uncleanliness on the part of attendants who contaminated the food of healthy persons after handling the stools or soiled linen of the sick. The bacilli are found regularly in Peyer's patches, the mesenteric glands, the liver, spleen, kidneys and intestinal wall. The blood is usually sterile, yet in a few cases the organisms have been found in the blood of the roseolar eruption. They are not found in the stools of patients until the ninth or tenth day of the disease, never in large quantities, and sometimes not at all, so that for diagnostic purposes during life the bacillus is of but little use. The incubation period is from one to three weeks, during which time the bacteria travel from the intestines through the lymph vessels to the above organs. The symptoms of the disease are produced by absorption of a specific chemical toxalbumin, which has been artificially produced in bouillon culture. Cases are on record in which during life the characteristic stools, and on post-mortem the typhoid lesions in the intestines, were wanting, so that a diagnosis of typhoid was possible only by finding the bacilli in the greatly swollen spleen. While inoculation with **Eberth**'s bacillus will not produce typhoid fever in animals, it will produce septicemia and death in a short time, and the rendering of animals immune against its influence is not at all difficult. This is accomplished by inoculating them with the blood serum of a person who has just recovered from typhoid fever, or the products of a bouillon culture, or the serum of another animal which has already been rendered immune. A few attempts have already been made to treat typhoid patients with serum obtained from immunized animals, but so far with indifferent results.

The examination of drinking water for typhoid bacilli is a most important matter, since this is the usual source of propagation of the disease, but it is a most difficult undertaking. Not only does water frequently contain several varieties of non-pathogenic bacteria which are remarkably similar to the typhoid bacillus, but water containing the latter of course also contains the bacillus coli communi, which is a normal inhabitant of the large intestine, and which some French bacteriologists declare to be identical with the **Eberth**-bacillus. However, if after observing the growth and appearance of such a bacillus in the various media at our command, we find no difference in its peculiarities and that of a pure culture of the typhoid bacillus which has been obtained from the spleen of a typhoid patient, we can say that their identity is in the highest degree probable. If, moreover, the bacilli in question are obtained from the fresh stools of a suspected typhoid patient, or from the organs of a fresh cadaver, the diagnosis is comparatively easy.

## THE BACILLUS COLI COMMUNIS.

The bacillus coli communis was discovered by **Escherich** in 1885 in the stools of a nursing baby. It was soon found to be a normal inhabitant of the large intestine in man and in many animals. Its importance has been largely due to its great resemblance to the typhoid bacillus. Microscopically it is impossible to diagnose between them, but certain culture peculiarities render a differentiation possible. The colon bacillus was formerly supposed to be harmless, but evidence has rapidly accumulated in the last three or four years to show that under certain circumstances it can penetrate the intestinal wall, enter the general circulation, and cause pyemia, meningitis, broncho-pneumonia, nephritis, abscess of the liver and peritonitis. Most of the bacteriological examinations of cases of cystitis during the last year or two have demonstrated the presence of this bacillus. Not only has peritonitis been experimentally produced in animals by inoculation with pure cultures, but many examinations of the exudate in perforation peritonitis have shown the bacillus coli in pure cultures. But it is in connection with appendicitis (or perityphlitis as it is called here) that this organism is exciting the greatest interest among surgeons at present. Many bacteriological examinations of cases of appendicitis have been made lately, and the bacillus coli has invariably been found as an apparently pure culture, not only in abscesses due to rupture of an appendix, but in the plastic lymph surrounding appendices whose walls are intact. The gonococcus is the only pathogenic bacterium which can penetrate the epithelium of healthy mucous membranes, and the bacterium coli cannot pass through the healthy intestine. A lesion of the mucosa must first be present. Owing to its anatomical peculiarities the vermiform appendix is especially prone to disease, and a catarrhal condition of its mucous membrane can arise from circulatory disturbances due to accidental twisting or misplacement of the organ, to the irritating effects of fecal masses which the feeble muscular power of the appendix render it unable to expel, to extension of catarrhal processes from the cecum, et cetera. **Gerloch's** valve, which is made by a fold of the cecal mucous membrane is not always present, and even when present, forms but an incomplete valve, so that the colon bacillus is always present in the interior of the appendix. Any one of the above causes can so abrade or injure the epithelium of the appendix as to permit easy passage of the bacillus, and peritonitis, plastic, serous, or suppurative, may follow long before the appendix has time to perforate. When injected into the peritoneum of animals this bacillus has even caused death from septicemia before peritonitis an inherited predisposition with the weakness of tissue that accompanies it, or resistive powers weakened by diseases must be present to render an individual susceptible to the influences of the bacillus. That a positive immunity does exist is shown by the recent discovery that in twelve out of thirty men dying suddenly from accidental or other causes, tubercle bacilli had passed the lungs and were found in a virulent state in the lymph glands of the body, usually in the bronchial.

The chief source of tubercular infection is of course the sputum of patients afflicted with pulmonary tuberculosis. The breath of consumptives contains no bacilli even when the lungs are broken down and swarming with bacilli. A further source of danger is the milk of tuberculous cows, which, according to some of the best authorities here, contains tubercle bacilli in 50 per cent. of the cases, even when no local process in the udders is demonstrable. Twenty-four per cent. of the cattle slaughtered at Berlin last year were found to be tuberculous, and as milch cows are more susceptible to the disease than steers, et cetera, it is not surprising that from 20 per cent. to 50 per cent. of the cows in a herd are often found to be the seat of tuberculous disease. Koch's tuberculin is now very generally employed for diagnostic purposes in cattle, and in one herd of Jersey cows numbering twenty heads, every one was found diseased. Tuberculosis of the digestive tract is not uncommon in calves. A large per cent. of the tubercular disease of the intestines, mesenteric glands, and peritoneum in children is supposed to be due to the drinking of tuberculous milk, for the tough envelope of the bacilli is able to resist the action of the gastric juice and to pass onward into the intestines. When congenital, the disease is supposed to always originate from the mother. Many times have rabbits and guinea-pigs been made tuberculous by the injection of bacilli into their testicles, and then allowed to run with females, and although their semen contained many bacilli, their progeny was always healthy, so that the penetration of an impregnated ovum by a bacillus is no longer thought possible. Nor is it thought that bacilli can enter a fetus from the maternal organism if the placenta is healthy and uninjured. Four very interesting cases of placental tuberculosis were recently reported to the Leipsic Gynecological and Obstetrical Society. Three of the women died from acute miliary tuberculosis, the fourth from pulmonary phthisis, and in one of the cases bacilli were found in the body of the fetus. The healthy placenta is compared to a filter which will permit the passage of poisonous substances in solution from the blood of the mother to that of the child, but never bacteria. Some disturbances of the villa of the chorion must exist from disease or accident before living organisms can penetrate to the fetus.

Koch's tuberculin inoculations are admitted by everybody to be a complete failure, and to have done incalculably more harm than good. It is stated that of the hundreds of cases of lupus or tuberculosis of the skin treated by tuberculin, and many of which were apparently cured, there is not one which has not relapsed. The reason is, that the tuberculin is not an immunizing agent. Many hundreds of cases are now being treated by serum from immunized patients, and, it is reported, with encouraging results.

### THE GONOCOCCUS.

One of the most useful bacteria, in a diagnostic sense, is the gonococcus. It is constantly found in the secretions of recent cases of all gonorrheal inflammations, as urethritis, vaginitis, endometritis, salpingitis, oöphoritis, ophthalmia, et cetera, and is easily stained and recognized. How long after the beginning of a gonorrheal infection the gonococcus can be found is not known. It is, however, often a matter of considerable importance, for as long as they are present in any part of a urethra, infection is possible. They are present in all fresh cases, and in some chronic, but in most of the latter a microscopical examination finds none. But such an examination will not always decide the question. While the presence of the cocci arranged in pairs within the capsule of the pus cell shows gonorrhea, their absence does not exclude it. Only young gonococci present a typical appearance and take on a stain. When old, they lose their typical forms and are no longer recognized as such. They become granular, varying in size and indefinite in outline. But by growing these altered forms in fresh culture media typical forms can again be secured, so that in all doubtful cases, a bacteriological examination by means of cultures is absolutely necessary.

In cases of gonorrhea in the male it is usually said that the gonococci have disappeared when the discharge becomes serous, but they may still exist in the deeper parts of the mucous membrane while the secretion from the surface remains free. An evening of dissipation on the part of the patient, or the passing of a sound, will often cause an increase in the secretion and reappearance of the gonococci. Only when repeated examinations after previous irritation have shown the urethra to be free from organisms can the danger of the infection be declared past. An assistant of one of the surgical clinics lately told me that a patient entered the hospital for treatment, who had not had gonorrhea for fifteen years. A sound was passed through his urethra five or six days later, and the next morning there was considerable urethral discharge in which many gonococci were found. I recently found these organisms in a pus tube that was said to be of at least one year's standing, and SÄNGER has found them in the cervical secretion one year after the date of infection.

LEIPSIC, GERMANY, July 15, 1894.

# EDITORIAL ARTICLES.

## THE COLLEGE ANNOUNCEMENTS.

THE season for medical college catalogues is now in full force, and the daily mail brings examples of this kind of literature. Those watching for signs of improvement in medical education cannot fail to be gratified. In nearly all cases increased length of time is called for in the students' course. Three years of study is now practically the minimum required, and in a large number of colleges the four-year course prevails. The complaint is generally raised that medical colleges are too numerous. Good schools are undoubtedly too few. The problem before the profession would not seem so much how to eliminate the superfluous, as how to elevate the general standard.

A tendency has predominated in the financial world to organize separate institutions into trusts, in which, while preserving their separate entities, they avoid disastrous competition. This method may ultimately be used in binding together the conflicting elements in educational institutions. To construct a an inherited predisposition with the weakness of tissue that accompanies it, or resistive powers weakened by diseases must be present to render an individual susceptible to the influences of the bacillus. That a positive immunity does exist is shown by the recent discovery that in twelve out of thirty men dying suddenly from accidental or other causes, tubercle bacilli had passed the lungs and were found in a virulent state in the lymph glands of the body, usually in the bronchial.

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A tendency has predominated in the financial world to organize separate institutions into trusts, in which, while preserving their separate entities, they avoid disastrous competition. This method may ultimately be used in binding together the conflicting elements in educational institutions. To construct a medical school needs an expenditure of one hundred thousand dollars. The formation of well-equipped laboratories is indispensable to the present-day student. These might be used by colleges in common. The expense of maintaining separate physiological and bacteriological establishments in a city which may have fourteen medical colleges is certainly impossible; they might, however, have one good one between them.

There should be no necessity for the youth of any large city having to go east or west for its education. The material and the teachers are always present in every city of a quarter of a million. Detroit is just as good a clinical centre as New York, provided its opportunities for clinical instruction be not divided in fragmentary portions between too many applicants.

The college catalogues show conclusively that the need of the student for prolonged instruction in biological laboratories has been recognized, and it will be necessary for those institutions, which expect to compete successfully for the student's patronage, to adopt measures which will secure them these advantages.

## THE PREVENTION OF INSANITY.

THE address of the president of the Psychological Section of the British Medical Association dealt with the prevention of insanity. Typhus is as rare as the plague. Cholera is kept at bay. Typhoid is becoming rarer and rarer. Small-pox is under control, and the tubercle bacillus is being circumvented with hygienic precautions, yet insanity and neurotic conditions increase rapidly in ratio to the population wherever the torch of civilization is burning. The orator on this occasion seemed to have no remedy to propose other than an intelligent natural selection. His suggestions are on the lines of DOCTOR RAYCRAFT's utterances on DARWINISM and race progress, who, speaking of natural selection in preserving the race, says "if we attempt to do away with its selective influence, namely, the elimination of the weak and the preservation of the strong, we must supply this selective influence by something else, or the race will tend to deteriorate. As selection is the race changer, we must replace selection by the microbe, by the selection of human forethought." DOCTOR BLANDFORD devotes his attention to indicating in what the selection of human forethought must consist. Heredity is maintained to be the principle factor in the etiology of the disease. DOCTOR B. W. RICHARDSON has given it as his opinion that anything like continuous transmission of insanity comes through the male line and not the female. "I take it," he said, "that really and truly all taints come from the primitive man—all changes that are hereditary—and that it is impossible to suppose them originally from the woman." This, the orator doubted. It is rare one sex has greater transmissive power than the other. The only remedy proposed was restriction of the marriage relation, and prohibition of offspring to those whose family histories revealed inherited taint.

## EDITORIAL BREVITIES.

### THE DANGERS OF SEA BATHING.

Now that the season for bathing is in full force, it is wise to recall a few of the dangers that accompany the practice. In persons of average good health, bathing is not likely to be followed by any ill results provided ordinary precautions be observed. Exposure to sudden and unusual temperatures constitute a considerable source of trouble. Cramp is accounted a cause of many fatalities. Cramp in the leg is not, however, a dangerous incident, and the cramp which causes the sudden collapse of a vigorous swimmer, is more likely to be some form of heart trouble. The troubles that ensue in the ear are frequently of grave character. Water in the ear is apt to cause inflammation and suppuration with perforation of the membrana tympani. A cotton plug or oil-skin cap suffices to protect against this injury. The benefits of sea bathing, however, far outweigh the dangers that may infest the unwary swimmer.

### THE CARNOT DEATH-RATE.

Here are a few of the indirect results of **President Carnot's** assassination. The chief *piquer* of M. **Carnot's** stable died of an apoplectic stroke on hearing the news. A boy was accidently stabbed by a schoolmaster who was demonstrating how **Caserio** committed the murder. A woman at Perpequan went mad on hearing the news and flung herself out of a window. The foreman of the men who arranged the funeral hangings at the Elysée died of heart disease aggravated by the excitement, and four people were killed in the crowd. **Caserio** is responsible for a good deal more than even his audacious imagination could have pictured.

### ANTI-CHOLERA INOCULATION.

The anti-cholera inoculations of M. **Haffkine**, in India, are meeting with much success. In one family in Calcutta in which four members out of six were inoculated, cholera attacked one of the non-inoculated, while the inoculated remained immune. Similiar results followed in other families in which the inoculation was made. M. **Haffkine** has been invited by the city of Madras to visit the city and introduce his method.

### MEDICINE IN INDIA.

A **Medical Congress** will be held in Calcutta in December. The objects of the Congress are to bring together medical men from all parts of the Indian Empire, and to discuss medical subjects connected with Indian diseases, and to place on permanent record some of the work which is now lost to science for want of proper publication.

## MEDICAL NEWS.

### DEATH OF AN AUSTRIAN ANATOMIST.

**Joseph Hyrtl**, an anatomist of distinction, died at Vienna, on July 17, aged eighty-three years. He was professor of anatomy, at different periods, in the Universities at Prague and Vienna, and the author of several medical works treating upon anatomy. "As a teacher Professor Hyrtl was almost unsurpassed. He was so gifted with eloquence that his lecture-room could only with difficulty accommodate the crowds of students of all nationalties that flocked to hear him. As an original investigator and scientist, Professor Hyrtl attracted the warm admiration of his contemporaries. He was the first German writer who published an independent treatise on topographical anatomy. His celebrated hand-book on that subject appeared in 1847. With the publication of his

'Ledehrbuch Anatomie des Menschen,' of which the twentieth edition has appeared this year, a new era was opened in anatomical text-books. His books have been translated into all European tongues. Professor Hyrtl's celebrity as a linguist is well known. He had so mastered the tongue of Cicero that it became in his mouth a living language, and he was always prepared to give the fullest explanations in elegant Latin to all inquirers. His knowledge of the Greek classics also was amazing, and in 1861 he delivered before the Paris Academy a much admired extemporaneous lecture in the French language. In his seventieth year he took up the study of Hebrew and Arabic with such success that three years later he was able to produce his remarkable work upon the anatomical ideas of the Jewish and Moorish physicians. Hyrtl was distinguished for his benevolence, and considering the modest amount of his income, his benefactions were astonishing. He supported poor students and benevolent institutions in a generous fashion. He caused two orphan institutions to be erected in Mödling, near Vienna, to accommodate two hundred orphans, and thus bestowed on Lower Austria a gift that cost him £30,000."

## THE PREVENTION OF TUBERCULOSIS.

The following precautionary measures have been taken by the Pennsylvania State Board of Health: *Resolved*, That it is the sense of the State Board of Health of Pennsylvania that the time has come when the state should provide hospital accommodations for persons suffering from pulmonary tuberculosis, in the case of those who cannot be properly cared for in their own homes, and who, through carelessness, might be dangerous to the community at large. It is believed that the establishment of such hospitals might be of great value in educating the people. *Resolved*, That it is the sense of the State Board of Health of Pennsylvania that all inmates of prisons, reformatories, alms-houses, hospitals, schools, and other public institutions, be vaccinated immediately on admission.

## THE NECROPSY OF PRESIDENT CARNOT.

The physicians who performed the autopsy on M. Carnot have rendered the subjoined report of their examination. "The undersigned doctors have proceeded to-day to the autopsy of the president: they have found the following lesions: The wound was seated immediately under the depression of the right side, three centimeters below the xiphoid appendix. It measured from twenty to twenty-five millimeters, and the blade had completely divided the corresponding cartilage. The blade of the poniard had penetrated the left lobe of the liver about five or six millimeters. About the suspensory ligaments it had perforated the organ from left to right, and from above downward, wounding in its passage the vena porta which was opened in two places. The length of the wound in the interior of the liver is [illegible] centimeters; a fatal intra-peritoneal hemorrhage was the [illegible] perforation.—*Doctors* Lacassagne, Henri Coutagne, [illegible] Gangolphe, *Fabre*.

## ASYLUMS FOR HABITUAL DRINKERS.

The subject of [illegible] attention in the section on neurology and medical [illegible] of the American Medical Association, the [illegible] of the following resolution presented by Doctor [illegible] *Whereas*, in view of the fact that the problems concerning the care and treatment of inebriates have become a practical necessity in every part of the country, therefore be it resolved that we earnestly urge and advise the establishment of special asylums for the care and treatment of habitual drinkers in each state of the Union. Resolved, that such asylums be organized by the state as industrial homes where each person can be placed under restraint, medical care and treatment for a sufficient length of time to permit of a full restoration. Resolved, that the time has come for means and measures based on scientific experience to gather and control the habitual inebriates and thus avert the danger and peril to public health, and lessen the burden to society which comes from this source.

### LEGACIES TO MICHIGAN INSTITUTIONS.

By the recent death of Miss Jean L. Coyl, of Detroit, the University of Michigan becomes enriched ten thousand dollars, and Harper Hospital, of Detroit, one hundred thousand dollars. The will specifies that the former bequest shall be expended in purchasing books designated by the professors at Ann Arbor, this library to be known as the Colonel Coyl collection, in memory of her late brother, Colonel William A. Coyl. The bequest to the latter institution consists of money and property, and the will commands that it shall be kept in perpetuity, the net income of which only shall be used to afford free hospital accommodations to such worthy and indigent persons as may be selected by the trustees. If this fund devised proves sufficient to build a wing to the hospital, this shall be done, otherwise the testator requests the trustees to set aside a portion of the present building for free hospital accommodations, to be named the William Kieft Coyl Free Hospital, in honor of her late father.

### DEATH OF DOCTOR GEORGE C. PALMER.

The death is announced of Doctor George C. Palmer, late medical director of the Oak Grove Sanitarium. Doctor Palmer was well known among alienists, particularly for his advocacy of the cottage system of asylum treatment. He was born in Connecticut in 1839, and came to Michigan at an early day. The degree of Doctor of Medicine was conferred on him by the University of Michigan in 1864, and for twenty-seven years he was connected with the Michigan Asylum for the Insane at Kalamazoo, officiating in the capacity of medical superintendent a portion of this time. His wife, formerly Doctor Mary Simpson McCarty, who graduated from the University of Michigan in 1886, and two children survive him. The doctor's loss will be much felt, not only in the institution in which he labored, but among his professional brethren. His remains were taken to Stonington, Connecticut, for interment.

### A BILL AUTHORIZING THE APPOINTMENT OF EXPERT WITNESSES.

The following is the copy of a bill which has been prepared for submission to the legislature of Illinois: *Be it enacted* by the people of the State of Illinois in the General Assembly represented, that the judges of the circuit and superior courts of the State of Illinois be, and the same are, hereby authorized to appoint in the month of January in each year, persons who shall act as expert witnesses in the medical and other sciences in giving opinion upon the evidence, as presented in a hypothetical form, of criminal causes that may be on hearing in the courts presided over by said judges. Such expert witnesses shall hold their appointments for one year or until their successors are appointed and qualified. They shall be entered as expert witnesses upon a list of such witnesses kept by the circuit clerk, and the said clerk shall issue a certificate of appointment as such expert witness to the person appointed as above. Such expert witness shall be citizens of the State of Illinois and shall be known in the communities where they reside for their professional competency and personal probity, and if physicians they shall have been at least five years in regular and active practice. When expert opinion is desired in any cause pending in a criminal court, the trial judge presiding in such cause may, at his discretion, summon for duty under this act, such expert witnesses to the number of three. Such expert witnesses shall be paid for their services by the county in which the trial for which they are summoned is held, in such sums as may be named by the judge. It shall be the duty of such expert witnesses to give an opinion on the evidence as presented in hypothetical form in the case in which they are called. Such experts shall be subject to cross-examination by both prosecution and defense; but such cross-examinations shall be limited entirely to the subjects embraced in their opinion. In criminal cases previous to trial, if the state's attorney deems it advisable to have expert opinion, he shall state to the court having jurisdiction of the cause, and the judge receiving such statement may summon expert witnesses to serve under this act.

## THE MONTREAL PUBLIC HEALTH MEETING.

THE American Public health Association will hold its twenty-second annual meeting at Montreal, Canada, on September 25 to 28. The following topics will be considered: (1) The pollution of water supplies; (2) The disposal of garbage and refuse; (3) Animal diseases and animal food; (4) The nomenclature of diseases and forms of statistics; (5) Protective inoculations in the infectious diseases; (6) National health legislation; (7) The cause and prevention of diphtheria; (8) Causes and prevention of infant mortality; (9) The restriction and prevention of tuberculosis; (10) Car sanitation; (11) The prevention of the spread of yellow fever. The executive committee announces the following additional subjects upon which papers are invited: (12) On the education of the young in the principles of hygiene; (13) Private destruction of household garbage and refuse; (14) Disinfection of dwellings after infectious diseases; (15) Inspection of school children with reference to the eyesight.

## MINOR INTELLIGENCE.

SMALL-POX has made its debut in Milwaukee.

GERMANY will soon have a medical press association.

NEW YORK is said to have ten thousand opium smokers.

THE free bathing system will be inaugurated in Baltimore.

KEY WEST, Florida, is the scene of an epidemic of dengue.

THE plague is still raging in China, and cholera is epidemic in Europe.

STERILIZED MILK is quite popular as a hot-weather drink in New York Cit

THE number of assistant surgeons in the medical department of the arm has been reduced from one hundred and twenty-five to one hundred and te

THE Idaho State Medical Society will meet at Boise, on September 10, 11 and 12.

CHANGE OF ADDRESS.—Doctor W. S. Brownell has removed from Utica to Detroit.

A STEAM DISINFECTOR is employed by the health department of Montreal, Canada.

MR. GLADSTONE will write the preface to the biography of the late Sir Andrew Clark.

THE Hebrew Benevolent Association of Pittsburg contemplates erecting a $20,000 hospital.

DOCTOR A. H. KIMBALL, of Battle Creek, Michigan, died on the 6th instant, aged forty-four years.

THE Fort Wayne College of Medicine now requires a three years' graded course for graduation.

DOCTOR JOSEPH M. MATHEWS is the newly elected president of the Kentucky State Board of Health.

ONE of the latest advances in surgical technique is the suturing of wounds by an electrical device.

THE Sultan of Turkey has granted women permission to practice medicine in the Turkish dominions.

CHANGE OF ADDRESS.—Doctor W. G. Henry, from 4 Adams avenue, west, to 38 High street, east, Detroit.

THE latest work of George Meredith, the greatest of England's living novelists, has been dedicated to a physician.

THE eighty-first annual meeting of the Vermont State Medical Society will be held at Montpelier, October 11 and 12.

THE Eighth International Congress of Hygiene and Dermatology will be held at Buda Pesth, September 1 to 8 proximo.

DOCTOR E. C. SEGUIN, of New York, has been elected a corresponding member of the Académiè de Medicine of Paris.

THERE are eleven medical colleges in Saint Louis, all with full faculties. This is medical education with a vengence.

DOCTOR L. F. WEAVER, of Nashville, Michigan, has been nominated for congress by the Democrats of the fourth district.

DOCTOR CHARLES S. BRIGGS succeeds his father as professor of surgery in the medical department of the University of Nashville.

THE mortality from the administration of chloroform is about three per cent. in a population of 450,000 at Melbourne, Australia.

THE annual meeting of the American Pharmaceutical Association will be held at Asheville, North Carolina, on September 3–8.

NEW YORK will have a new hospital for the insane. It will be founded on the Collins farm, about thirty miles from Buffalo, and managed by homeopaths.

In consequence of the war between China and Japan, the price of opium has advanced over thirty per cent. during the past month.

The fourth annual meeting of the American Electro-Therapeutical Association will be held in New York, on September 25 to 27.

The board of managers of the Rochester (New York) State Hospital recently adopted plans and specifications for a $65,000 building.

Typhoid Fever is prevalent at Montclair, New Jersey. The germ was conveyed in artificial ice, manufactured from undistilled water.

The Riverside Hospital at Yonkers, New York, has been enriched by an additional gift of $50,000 from Mr. and Mrs. M. F. Cochran.

Professor Gursenbauer, of Prague, has been elected to occupy the chair of surgery at Vienna, recently vacated by the death of Billroth.

The electric centrifuge is an apparatus invented by Doctor C. W. Purdy, of Chicago. It is designed for the centrifugal analysis of urine.

The nurses of Detroit contemplate the formation of a home. This will serve the purposes of a living establishment and a registration office.

Doctors Tizzoni and Luciani have been awarded $4,000 by the king of Italy for their experimental research on the functions of the cerebellum.

The Sterilized Milk and Ice Society is an organization recently founded in Philadelphia to supply ice and milk to the poor at a nominal price.

The Medical Society of Virginia will convene in Richmond, on October 23, under the presidency of Doctor William P. McGuire, of Winchester.

Doctor Judson B. Andrews, medical superintendent of the Buffalo State Hospital for the Insane, died in Buffalo, August 3, aged sixty years.

Queen Victoria has conferred the honor of a baronetcy upon Doctor John Williams, who attended the Duchess of York in recent confinement.

Russian physicians and pharmacists will be required to employ the decimal system of weights and measures after the expiration of the present year.

The medical profession is represented in the new French cabinet by Doctor Viger, minister of agriculture, and Doctor Lourties, minister of commerce.

Pupils in the schools of France quench their thirst with sterilized water, and the floors of scholastic buildings are cleansed with moist cloths instead of dry brush and broom.

Doctor Julia H. Smith, of Chicago, has been nominated by the Democratic party for member of the State University Board, an honor never hitherto conferred on woman.

A Protestant hospital is to be established in Seattle, Washington. Its founders contemplate gratuitous medical and surgical treatment to poor sick and infirm persons.

Doctor W. H. Park, a medical missionary and surgeon at Soo Chow, China, has been honored by the title of mandarin. This mark of distinction was conferred in consideration of having successfully treated a wounded Chinese general.

A CORRESPONDENT of *The British Medical Journal* discovers that American dentists are using diamonds to fill front teeth, and denounces the vulgar display of the new custom.

THE last will and testament of Mary McMullen gives property valued at $65,000 to Saint Agnes' Hospital, of Philadelphia, at which institution this woman recently died.

THE *Saint Louis Clinique* has been purchased by Doctor Emory Lanphear, who was recently called to that city to accept a chair in the College of Physicians and Surgeons.

THE seventh annual meeting of the American Association of Obstetricians and Gynecologists will be held at Toronto, Ontario, on September 19–21. The medical profession is invited.

DOCTOR M. F. FASQUELLE, a pioneer physician of Mount Pleasant, died on the 6th instant. He was a graduate of the medical department of the University of Michigan, class of 1872.

DOCTOR NORMAN WALKER, of Edinburgh, Scotland, has been awarded the Boylston Medical Prize for 1894, "The Histological Varieties of Cutaneous Cancer" being the title of his essay.

CHICAGO hospitals have recently been enriched $50,000. The late John Crerar is the benefactor, and the amount is equally divided between the Presbyterian and Saint Luke's hospitals.

A LEPER COLONY is to be established in the vicinity of Nicolaivsk, Russia. The enclosure will comprise land for gardens and the necessary buildings, the whole to be surrounded by a stockade.

DOCTOR KOHN, of Vienna, has proposed, as a prophylatic of diphtheria among school children, the inhalation of permanganate of potassium, in the form of spray, when the classes are disbanded.

THE Berlin Obstetrical and Gynecological Society has elected Doctors T. Gaillard Thomas, and Thomas Addis Emmett, of New York City, and Theophilus Parvin, of Philadelphia, honorary members.

THE Russian surgeon, Pirogoff, is to have his memory perpetuated by a monument. A subscription for this purpose already amounts to twelve thousand roubles ($6,000). The tablet will be erected in Moscow.

DOCTOR JESSIE M. WESTON has been elected to the medical staff of the Connecticut State Hospital for the Insane, at Middleton. She is a graduate of the Woman's Medical College, of Philadelphia, class of 1893.

DOCTOR J. M. DINNIN, of Fort Wayne, Indiana, has announced his intention of suing the Allen County (Indiana) Medical Society for $25,000 damages. The society accused the doctor of misrepresenting the nature of an ailment claimed to be small-pox, and now he is in quest of the marks.

THE "Big Four" railroad management will establish new railroad hospitals at Cincinnati, Columbus, Cleveland, Sandusky, Peoria, Kankakee, Cairo, Saint Louis, and Indianapolis, and employes receiving a salary of more than fifty dollars monthly will be taxed fifty cents per month to sustain the institutions.

**Herman Hospital**, of Elgin, Illinois, was recently presented with the proceeds of a concert given under the auspices of Saint Mary's and Saint Joseph's Catholic churches. The donation was a substantial one.

**London** now claims to be the healthiest of the large cities. The death-rate being only 16.3 per thousand persons. The death-rates in other large cities are, Berlin, 18.2; Paris, 20.5; Vienna, 22.5; New York, 19.6.

**The** name Doctor E. B. Smith was accidentally omitted from the list of Michigan delegates attending the meeting of the American Medical Association in San Francisco. The doctor was accompanied by his wife.

**School** boards are empowered to exclude from the public schools children who have not been vaccinated. This decision has been rendered by the supreme court of Pennsylvania in confirming the decree of a lower court.

**Charlotte**, North Carolina, taxes each physician $15 a year, and secures an income of $405 from the profession by this means. Louisville, Kentucky, from its tax of $10 on each physician, nets an annual income of $3,400.

**The** German Association of Scientists and Physicians will meet in Vienna during the last week in September. An appropriation of $5,000 has been made by the Austrian government to defray the expenses of the meeting.

**Ten** acres of land have recently been purchased within the city limits of Chicago upon which a contagious disease hospital will be erected. The site was acquired at a cost of $20,000, and a model building is contemplated.

**A death** due to hydrophobia has occurred at the Pasteur Institute in New York. The patient had been seized with alarming symptoms before entering the institute, and rapidly succumbed to paralysis of the nervous centers.

**The** physicians of Rome and vicinity have inaugurated a movement looking to the formation of an association for the protection of their interests in their relations with patients, public authorities, and hospital governing bodies.

**The** Society of Physicians and Naturalists of Germany, will celebrate its sixty-sixth anniversary in Vienna on September 24 to 30. The Austrian Government has voted ten thousand florins to defray the expenses of the jubilee.

**Allegheny**, Pennsylvania, obtains its drinking water from the Allegheny river, and sixteen sewers discharge their contents at the point of supply. No system of garbage removal is in effect and the sanitary status of the city is precarious.

**The** Memphis Board of Health has petitioned the Tennessee State Board of Health to inaugurate measures directed toward procuring legislation prohibiting infant and child life insurance within that state. The action is demanded on the ground that the practice predisposes to criminal negligence in the care of children and is therefore prejudicial to public health.

**The** smallest man in the world is said to be Dudley Foster, who recently died at Bridgetown, Nova Scotia. The dwarf succumbed to heart disease at the age of sixteen years and ten months. He tipped the beam at twenty pounds, and had attained a growth of thirty inches. Notwithstanding the favorable appellation borne by this human prodigy he could not foster longer.

**Dorothy Drew**, Mr. Gladstone's granddaughter, is subjected to peculiar hygienic treatment. She always goes barefoot, indoor and out, except in very muddy or bitterly cold weather. Her dress and fare are of the simplest, and she is one of the healthiest, happiest, and most irrepressible of children.

**Doctor Johann Antal**, a Hungarian chemist, is credited with having discovered a new chemical compound known as nitrate of cobalt, which is an antidote for poisoning by cyanide of potassium. It has been experimented with on animals and persons and proved itself an efficacious antidote in every instance.

**Sterilization** stations for doctors are advocated by Gutmann. The project contemplates the erection of depots at convenient localities in cities and large towns where physicians can be disinfected after visiting cases of infectious disease prior to making other visits. The procedure will involve a period of fifteen minutes.

**Doctor Kitasato**, the Japanese bacteriologist, thinks he has discovered the plague bacillus. His experiments at Hong Kong resulted in finding a short, slender, straight-rod bacillus, somewhat similar to that of anthrax, cultures of which produced death, with symptoms of the plague, in animals inoculated therewith.

**Doctor Juan J. Ulloa**, of Costa Rica, has been appointed secretary of state in the Department of the Interior and of Public Improvements of Costa Rica. The doctor was a delegate from Costa Rica to the Pan-American Medical Congress, and is a graduate of the medical department of the University of the City of New York.

**It** is said that New York affords better openings for young physicians than Texas. One who has traveled the latter state in quest of a location reports every hamlet supersupplied. Many are standing about town awaiting emergency cases with the expectation of realizing therefrom sufficient for transportation to their native heaths.

**A woman** in Monticello, New York, was recently convicted of murder in the first degree and sentenced to death in the electric chair. A commission of experts appointed to examine into her sanity reported that she was of unsound mind, and Governor Flower accordingly changed the sentence to imprisonment for life as an insane convict.

"**The** father of English orthopedy," Doctor William J. Little, of London, died on Saturday, July 7, in the eighty-fourth year of his age. He was the author of "A Treatise on Clubfoot and Analogous Distortions," published in 1839, and conjoint author with his son of a work on "In-Knee," which appeared in 1882. For many years he was physician to the London Hospital and lecturer on the Practice of Medicine in the college.

**General A. J. Pleasanton**, of Philadelphia, died at his farm near Overbrook, Pennsylvania, the last week in July. He was eighty-six years of age, and acquired fame through his blue glass fad. He attributed his great age to the peculiar practice of wearing heavy overshoes whenever he ventured out, even in the driest weather. In 1876 he published a book in which he advanced the unique theory of the curative properties of blue rays of sunlight, whence the advent of his nickname, "Blue Glass," and the craze for windows of that color.

DOCTOR E. B. DUNNING, of Paw Paw, Michigan, died on the 3d instant, aged sixty-five years. The doctor was a member of the American Medical Association; the Michigan State Medical Society; and the Kalamazoo Academy of Medicine. He graduated from the medical department of the University of the City of New York, class of 1854.

A BICYCLE AMBULANCE is a new invention precipitated upon the profession by Doctor H. L. Getz, professor of anatomy and clinical gynecology in the Saint Louis College of Physicians and Surgeons. It consists of a stretcher fastened securely to the top of a bicycle frame. The skeleton to which the stretcher is attached is made of aluminium. The doctor believes his novelty will prove of paramount utility.

DOCTOR J. L. WILDS, aged about forty years, and a prominent homeopathic physician of Nicholasville, Kentucky, committed suicide by hanging in a stable loft at that place on the 20th ultimo. Heredity appears as a factor in the case, the unfortunate's father having attempted self-destruction by cutting his throat, and a sister making her exit by leaden pellet route. The doctor leaves a wife and six children, an insurance policy for $7,500 being their legacy.

A GRAPHIC and intensely interesting history of Roman medicine has been issued by Messrs. Oppenheimer, Son & Company (limited), of 14 Workshop street, E. C., London. It is recorded on stone tablets, which have been faithfully and appropriately reproduced by the lithographer. The monograph is illustrated by vases, bottles, pixidia, and apparatus used by Roman followers of Aesculapius, and there are also drawings of a large number of Roman surgical instruments, with notes on their use.

DOCTOR C. B. BURR has resigned his position as superintendent of the Eastern Michigan Asylum, to assume the duties of medical superintendent of the Oak Grove Sanitarium at Flint. Doctor Burr carries to his new field of labor, not only the good will of the entire profession of the state, but an experience and knowledge of the care of the insane, which will insure the success of the admirable institution with which he has joined his fortunes. Doctor Burr is succeeded by Doctor E. A. Christian as superintendent at Pontiac.

SIR JOSEPH LYSTER has been awarded the Albert medal. The council of the Society of Arts has, with the approval and sanction of the president, His Royal Highness the Prince of Wales, conferred this token "for the discovery and establishment of the antiseptic method of treating wounds and injuries, by which not only has the art of surgery been greatly promoted and human life saved in all parts of the world, but extensive industries have been created for the supply of materials for carrying the treatment into effect."

NANCY D. RICHARDS, M. D., wife of Congressman Richards, of Ohio, is practicing medicine in Washington. For fourteen years prior to her husband's election she practiced at New Philadelphia, Ohio. On her arrival at the Capita she became acquainted with prominent members of the profession and was prevailed upon to conduct a clinic in one of the medical colleges. Later sh received the appointment of attending physician in a charitable institution, an it soon becoming known that she was an excellent physician her services wer sought to an extent that induced her to enter general practice, and now he door-plate appears on a substantial residence in close proximity to the Capitol.

THE Medical Society of the State of West Virginia held its twenty-seventh annual session at Berkeley Springs, July 10 and 11. The organization has two hundred and twenty-one members. The officers for the ensuing year are as follows: President, Doctor D. Mayer, of Charleston; vice-presidents, Doctors R. H. Cummins, of Wheeling, C. S. Hoffman, of Keyser, V. T. Churchman, of Charleston, W. S. Keefer, of Parkersburg; secretary, Doctor G. A. Aschman, of Wheeling; treasurer, Doctor J. A. Campbell, of Wheeling. The next meeting will be held at Elkins, the date to be decided by the officers.

A REPARTEE of words, as the result of a hospital row which occurred in Zanesville, Ohio, several weeks ago, has recently waxed warm between Doctor Crossland and Fenton Bagley, a prominent attorney of that place. The doctor published a protest against the city council making appropriations for hospital support, whereupon the irate attorney wrote a letter in which this disciple of Aesculapius was branded a coward and cur for referring to Mrs. Bagley's accouchement which occurred in the hospital. The doctor's retort was returned unopened, and unless the troubled waters can be calmed a duel is expected.

BOSTON has a floating hospital for babies. The urchins are taken from the crowded districts, placed aboard a barge, and given a trip down the harbor and back. Only sick children are granted this privilege, admission being by ticket, signed by the physician attending the child. Applicants must be under six years of age, and not suffering from contagious disease. Several young physicians have volunteered their services to the barge, and a trained nurse will act as matron. Only four trips will be made this summer, but next year they will occur with greater frequency. This charitable enterprise will undoubtedly result in saving many lives.

THE protection of infant life was the subject discussed by an international congress at Bordeaux on July 22. The members were divided into three sections for the consideration of the different phases of the question: (1) A physical section, in which all questions relating to societies for protecting infant life, maternal charity *crèches*, children's hospitals, sanatoria, et cetera, were discussed. (2) A moral section, for the discussion of questions relating to the protection of children abandoned by their natural protectors, apprenticing, orphan homes, and agricultural colonies. (3) An administrative section, in which the Roussel law and all questions relating to the protection of infant life will be studied.

DOCTOR J. R. MCGURK, of Capac, died on the 6th instant. The doctor was born in Belfast, Ireland, March 16, 1843. When five years of age he went with his parents to Hamilton, Canada, and in 1856 they removed to Mooretown, Ontario. He received his education in the common school of his town and the grammar school of Sarnia, and his medical training in Canada, Ann Arbor and Detroit, graduating from the Detroit Medical College in 1870. In that year he settled at Capac, and began the practice of his profession. He was a popular citizen and manifested great interest in public affairs. In 1879 he represented his district in the legislature, and in 1881 he was elected to the state senate. He served as village president and councilman, and at the time of his demise was director of the high school and president of the Capac Agricultural Society. He left an estate valued at twenty thousand dollars, to be divided between his widow and brothers.

DOCTOR JAMES H. ADAMS, of Fort Recovery, Ohio, convicted of having performed a criminal operation, received a two years' sentence to the penitentiary last winter. On the 6th ultimo the doctor was granted a pardon, it having been demonstrated that the charge was begotten of blackmail. Hundreds of acquaintances met at the depot to welcome his return home.

WHILE Doctor Longfellow, of Cincinnati, was enjoying his annual outing in July, robbers effected an entrance into his residence. In their search for plunder every apartment was ransacked, bed clothing and carpets were slashed, and every drawer bore evidence of having been pilfered, but the desired booty failed tô materialize and the thieves unrewarded escaped detection.

# RECENT PUBLICATIONS.

## REVIEWS.

### ESSENTIALS OF DISEASES OF THE EYE, NOSE, AND THROAT.*

THIS is one of the excellent compends issued by Saunders, to whose merit we have many times alluded in this journal. The number before us maintains in all respect the high standard attained by its predecessors.

* By Edward Jackson, A. M., M. D., and E. B. Gleason, S. B., M. D. Second edition. One hundred and twenty-four illustrations. W. B. Saunders, Philadelphia.

### MEDICAL CHEMISTRY.*

PROGRESS in chemical science makes rewriting and reediting an indispensable condition to the author of a text-book. The present manual of chemistry is an old friend with medical students, being specially suited to their use. The new edition contains much additional matter, made necessary by the more extended course of teaching now prevailing in most medical colleges, as well as by the introduction of so many synthetical compounds into medical practice.

The physician will find in this manual the key to much that he will require in the matter of urinalysis, and the chemical examination of secretions. The manual is in every respect worthy the patronage of the student.

* A Text-Book of Medical and Pharmaceutical Chemistry. By Elias H. Bartley, B. S., M. D., Professor of Chemistry and Toxicology in the Long Island College Hospital. Third edition, revised and enlarged. Eighty-four illustrations. Price, $3.00. P. Blakiston, Son & Company, Philadelphia.

### AID TO THE INJURED.*

THIS is an excellent manual of instruction as to what is to be done in emergencies in order that the sick and injured may be temporarily relieved. It traverses the whole field of medical and surgical emergencies including a vast amount of information which can scarcely be classified under this head, it being considered that in order to deal intelligently with these emergencies that it is desirable the agent should know something of the construction of the human body and the functions of its principal organs. A chapter on hygiene and the drill regulations for the hospital corps of the United States army, will make the manual particularly valuable to the surgeons of military organizations, or those who may desire to have ambulance service based on the principles in vogue in the services.

* A Manual of Instruction in the Principles of Prompt Aid to the Injured. By Alvah H. Doty, M. D., Major and Surgeon of the Ninth Regiment National Guards of the State of New York. Second edition. D. Appleton & Company, New York.

# MEDICAL PROGRESS.

## GYNECOLOGY.

### DISORDERS OF THE MENOPAUSE AND THEIR TREATMENT.

M. Eloy, writing in the *Revue générale de clinique et de thérapeutique* for December 23, remarks that the part played by the change of life has hardly been adequately treated of in general pathology. At the present day we hear less of it than ever, but that does not do away with a good deal being said about the management of the disorders incident to that time of life. Every practitioner is now and then consulted on the subject. He has to give very precise instructions in order to put his patient on her guard against the exaggeration of popular prejudices. Sometimes the condition of things is obscured, but it must be elucidated. Recent clinical works, among which are those written by Elliot in England, Jacobs in Belgium, and others in France and elsewhere, have drawn attention anew to this old question of practice. There is therefore an opportunity of drawing a therapeutical lesson truly useful to practitioners. One point seems to have been thoroughly made out; it is admitted that there is such a thing as a treatment of the menopause. It is preventive and curative of the accidents pertaining to it. It is a general treatment. Like any other, it should be hygienic primarily, and symtomatic as occasion requires.

*The Hygienic Treatment of the Menopause.*—So far as this is concerned, there is a perfect agreement between clinicians and physiologists. We have to take into account the diet, physical exertion, and the clothing. It may seem commonplace thus to enumerate these things, but it is useful. Sobriety in everything, according to Jacobs, is the moral principle that should inspire a woman at the change of life. As regards diet, physicians should advise in general white meat, eggs, milk, vegetables, and drinks but moderately alcoholic, pure water or wine diluted with water. The patient should avoid hearty meat, culinary refinements, coffee, tea, and stimulants. But this broad and vague prescription is not enough; we should take into account the old idea of temperament, although at the present time this idea is not very definite. To the plethoric a rather innutritious diet should be given: leguminous vegetables, white meat, and fruit; to the lymphatic, on the other hand, a sustaining and substantial diet: dark meat, fish, and generous wines in preference to milk and starchy articles of food.

The *hygiene of sleep* should consist in devoting only eight hours of repose to the plethoric and in combating the well-known tendency of lymphatic persons to sleep late. Jacobs advises them to rise early and to sleep on a moderately soft bed.

As regards physical exercise, for the plethoric we may recommend a walk after eating and for the lymphatic after bathing, in order to excite lively reaction; for nervous persons we should prescribe a daily course, sufficiently long, of walking and exercise. In the matter of dress, flannel should be employed for the plethoric, and for others lighter articles. Of course, regard is to be paid in this matter to variations of temperature; the clothing should be warm in winter and light in summer. The chemise should be of cotton rather than of linen; there should be only moderate lacing or none at all if there is a disposition to fleshiness, and the patient should wear shoes that are light but sufficient to protect the feet from dampness and chilliness. Hygienists depreciate chilling at the time of the menopause; it seems that cold is, as it were, the chief pathogenic factor of the complications that may arise. To sum up, the preservation of health at this period of life depends on the proper course of diet, hydrotherapeutics, graduated physical exertion, and gymnastics.

Jacobs urges the avoidance of excess in sexual intercourse. He remarks that it gives rise to debility and to local troubles, such as menorrhagia. After the critical age is passed, however, more freedom may be allowed.

*Treatment of the Accidents of the Menopause.*—The best-known of these are chlorosis, neurasthenia, and nervous and gastro-intestinal troubles. The chlorosis of this period was called by Canstatt "chlorosis of involution"; according to M. Germain Sée, it is anemia dependent on the hemorrhages or the affections of the heart that are common at this age. M. Hayem, however, has pointed out that this interpretation, although sometimes exact, is not always so. There are cases in which, independently of casual causes, this anemia excited by the menopause is a return to the chlorosis that the patient had previously been a subject of at the time of puberty. This statement is justified by clinical observation. Prominent with chlorosis are dyspeptic symptoms at the time of menopause. The variety of these gastro-intestinal troubles is well known. At the time of the menopause a woman readily becomes chlorotic as the result of digestive disorders. Therefore, before prescribing iron or arsenic, the judicious physician will treat the stomach and intestines.

Loss of appetite is to be treated with tonics and bitters, such as nux vomica, gentian, et cetera. They should be given before eating and in the form of tincture. Of a mixture of equal parts of tincture of nux vomica and tincture of anise, from ten to fifteen drops may be taken before eating. Another prescription is: Three parts each of Hoffmann's anodyne, tincture of anise, and tincture of rhubarb, and one part of tincture of nux vomica. Potain recommends twenty drops of this in a little water before meals. In case of flatulence it may be preferable to prescribe powders, such, for example, as the following, recommended by Hérard: Powdered nux vomica, fifteen grains; powdered rhubarb, a drachm; chalk, forty-five grains; eleosaccharum of mint, a drachm. This is to be divided into twenty powders, one of which is to be taken before each meal. If there is dyspepsia it will be found that there is a deficiency of gastric juice; in that case Huchard's mixture may be prescribed, namely, hydrochloric acid, thirty drops; syrup of bitter-orange peel, an ounce; melissa water and linden water, each two ounces. Of this a tablespoonful is to be taken after eating.

Another common accident, constipation, calls for particular notice. Coprostasis is to be prevented, for the purpose of avoiding intestinal self-poisoning, which has been shown to play an important part in the genesis of diseases characterized by faulty nutrition. One action of the bowels should be produced every day. As a laxative, aloes retains its faithful partisans; aloin conjoined with strychnine, a purgative with a tonic, is recommended by Elliot. A pill containing 0·15 of a grain of aloin and 0·075 of a grain of strychnine sulphate may be given once or twice a day. According to MM. Dujardin-Beaumetz and Huchard, senna is best given in the following mixture: Senna leaves, washed in alcohol and powdered, and sublimed sulphur, each 90 grains; powdered fennel, powdered star anise, and powdered cream of tartar, each 45 grains; powdered licorice 120 grains; powdered sugar, 375 grains. Of this a dessertspoonful or a soupspoonful may be taken every evening in half a glass of water.

If there are disorders of the heart, the following prescription is recommended by M. Huchard: Powdered digitalis leaves, squill, and scammony, each seventy-five grains; syrup of gum, a sufficient quantity. This is to be divided into a hundred pills, of which from two to five may be given daily. If there is congestion of the liver, the following capsules will be found more energetic as laxatives: Potassium sulphate, cream of tartar, and potassium nitrate, each ninety grains; powdered digitalis leaves, fifteen grains; to be divided into twenty capsules, of which one or two may be taken daily.

The gastralgia of the menopause does not differ in its treatment from gastralgia under other circumstances.

As regards the administration of iron and arsenic, how should the first of these be administered? If there is reason to fear digestive derangements, by combining its use with that of hydrochloric acid. The preparation of iron is to be taken in the course of a meal, and that of the hydrochloric acid at the termination of the meal. If there is want of appetite, the iron is to be associated with a bitter tonic; about a fifth of a grain each of iron protoxide and powdered calumba may be given in a capsule. Therapeutists are somewhat at variance in regard to the choice of preparations of iron. The protoxalate, in daily amounts of from a fifth to a quarter of a grain, is to be recommended on account of its solubility and the rapidity with which it is absorbed. It is an eligible preparation of iron, and may be taken before each of the two principal meals. Its use should be begun in small doses, which may be increased gradually. In gastralgic chlorosis we may have recurrence to iron and potassium tartrate. Here are two good prescriptions, the first of which is rather indicated by gastralgic chlorosis, and the second if there is constipation with absence of fever: (1) Iron and potassium tartrate, 150 grains; extract of gentian, 120 grains; extract of nux vomica and extract of opium, each 4 grains. This is to be divided into a hundred pills, two to be taken before each meal. (2) Extract of nux vomica, 8 grains; extract of cinchona, extract of gentian, extract of rhubarb, and iron and potassium tartrate, each 75 grains; oil of anise, 5 drops; glycerin, a sufficient quantity. This is to be divided into a hundred pills, two to be taken at the beginning of each meal.

Arsenic increases the production of red globules. Moreover, it stimulates nutrition, so that it is particularly applicable in the very pronounced forms of anemia. It should therefore, as Luzet has pointed out, be considered not as a substitute for iron, but as an adjuvant. For this reason it is indicated in the chlorosis of the menopause, in the form of arsenical mineral water. We may give the waters of La Bourboule, Plombières, and Mont-Dore, Fowler's solution, or the following pills: Sodium arsenate, a grain and a half; glycerin, a sufficient quantity; extract of gentian and extract of cinchona, 150 grains. To be divided into a hundred pills, of which two may be taken before each of the principle meals. The remedy may be used in the form of powder, combined with iron bitters, as in Elliot's arsenio-ferrated capsules, each of which contains 0·0015 of a grain of arsenious acid, eight-tenths of a grain of aloes, one-third of a grain of powdered nux vomica, and a grain and a half of reduced iron. Two of these may be given in the course of twenty-four hours. The arsenical treatment should be discontinued at the end of a month or six weeks, but may be resumed subsequently after a long period of abstention.

With the restoration of the nutrition, any nervous derangement that may have been present will doubtless have been alleviated. Nevertheless, we may have to give special attention to sleeplessness and nervous irritability; for this bromides, especially sodium bromide, are appropriate. If there are phenomena of depression or of a neurasthenic condition, recourse may be had to phosphorus, in the first place, and subsequently to the phosphides. In England, where the use of phosphorus is in greater vogue than in France, Elliot advises beginning with pills each of which contains 0.008 of a grain of phosphorus and 0·15 of a grain of extract of nux vomica, one daily. Later on he prescribes zinc phosphide in the form of pills each containing from 0·30 to 0·45 of a grain of phosphide and 0·15 of a grain of nux vomica, one to be given daily. Finally, there is the resort to hypodermic injections of artificial serum and even of the testicular extract according to Brown-Séquard's method. Undoubtedly the organic extracts will not cure the accidents of the menopause, but it is quite certain that they will contribute to allay its nervous derangements by improving the nutrition. They may usefully precede or succeed the physiological action of hygienic and medical measures.—*New York Medical Journal.*

## MEDICINE.

### THE TEMPERAMENTS.

It is interesting to find that so thoroughly scientific a man as Professor William Preyer has adopted the four-fold classification of temperaments made nearly two thousand years ago, namely, the choleric, sanguine, melancholy, and lymphatic. The existence of one or the other of these temperaments may be discerned, he says in his work on "The Infant Mind," very early in the great majority of children—in the second quarter of the first year, beyond a doubt.

Nearly every one who has written about temperaments has gotten up a classification of his own; Galen had nine, Haycock gave six, Graham Brown, seven, and others have got down as low as two. Modern writers use the word nervous for choleric and bilious for melancholic temperament. With these verbal modifications the old classification seems to answer all practical purposes, and individuals can build up combinations as needed.

Hutchinson defines temperament as the sum of the physical peculiarities of a man exclusive of his tendency to disease. This is not very satisfactory, though, perhaps, temperament is a thing a little too vague to be satisfactorily defined. In modern terms it may be said to be the peculiar way in which the individual reacts to the stimuli of his environment. There is no doubt that one class of persons react quickly and easily, expending energy profusely and often needlessly in their life work; others react hopefully and work buoyantly yet with less waste. We can thus distinguish the nervous, the sanguine, the melancholic, et cetera. A capacity to recognize and appreciate the importance of temperament used to be considered part of a sound medical training. It has been too much neglected in our pursuit of minutiæ with microscopes and test-tubes. Our teachers of practical medicine might well revive its study.

## THERAPEUTICS.

### INFANT FEEDING.

Budin (*Rev. Gén. des Sciences*, Numbers XXI, XXIII, 1893) insists on the value of systematic weighing of infants as the best test of the condition of nutrition and the relative value of different modes of feeding. Under any circumstances there is a loss of weight during the first two or three days of life, and this should be regarded as physiological, since the secretion of milk does not become established as a rule until the third day. It may be lessened by giving sterilized milk, and in weakly infants it may be desirable to do this. Contrasting the increase of weight in infants (1) suckled, (2) partly suckled and partly fed artificially, and (3) fed artificially, it was found that during the first ten to twelve days of life the average daily gain in weight was approximately twice as great in the first class (432 grains) as in the third (218 grains), while with the mixed diet the rate of increase was intermediate (278 grains). The number of infants in the third class, however, was very small as compared with the other two; and there was the further fallacy that with the third class there was some delay in beginning the artificial feeding owing to the expectation that the secretion of milk would ultimately begin. When the first year of life is taken as the period of comparison, it is quite possible to get as rapid and steady an augmentation of weight with sterilized cow's milk as with human milk. The increase in weight may even be above the average. The quantity of milk given should be so adjusted as to lead to such a steady increase of weight as, speaking in round numbers, will lead to a doubling of the weight in the first five months, and its trebling in the first year. Failure in the quantity of the mother's milk will be shown by an arrest in the increment of weight, or by an actual decrease. This may be converted into an increment by giving sterilized milk. Loss of weight accompanied by vomiting may, however, be an indication that the quantity of milk given is too large; thus an infant, three weeks old, taking 24½ fluid ounces of milk, began to suffer from gastric disturbance; the quantity was reduced to 17½ fluid ounces, the vomiting ceased in two days, and the weight began to increase again on the third day. After first employing sterilized milk diluted with water, Budin was led to employ sterilized milk undiluted, and with such good results that he now employs it exclusively. He sterilizes the milk by raising it to 212° Fahrenheit, in what is practically a steam bath.—*The British Medical Journal.*

## MEDICAL MELANGE.

### COLOR-HEARING.

In the *Gazette hebdomadaire de médecine et de chirurgie* for December 16, Mademoiselle N. Astier gives the following account of her own case: "I must have been seven or eight years old when I began to notice and to signify to others the connection that for me existed between certain colors and certain sounds or letters. In the books of my childhood every letter *o* was red and every *i* was blue; these color effects resulted in inducing the other members of the family to perceive the colors which I saw at first, whether by looking at the printed letter or on hearing the corresponding sound. There were only three letters that I saw distinctly: the red *o*, brilliant and luminous as a fine wild poppy; the *i* of a dull indigo blue, and the black *u*. Other vowels and the consonants had no special colors; they borrowed the tint of the nearest colored vowel. Words that contained both *o* and *i* appeared violet; this color, which I could not tolerate, brought to my mind certain odious names, among others my own given name, which I could not hear without experiencing the same sort of pain as is produced by hearing a discord. I had a very disagreeable feeling on looking at anything blue or at the letter *i*, and at the age of eight or nine years I refused to write this letter in the names of those I loved, but I added it to the names of those I disliked. When I read, I saw the color on the book, very vivid on the vowel and radiating all around the word; when I listened to the word, the tint floated before my eyes, without definite form, comparable to a uniform and evanescent phosphene. Figures did not seem to me to be colored, except seven and eight, the former being agreeable and red like *o*, and the latter disagreeable and blue. Colors were associated also with musical sounds and with noises; the full, rich tones of the organ, those of the violoncello, and those of the voice in the medium register were red, brilliant, and warm; grinding sounds, the harsh sounds of the voice, those of the clarinet, and those of the violin were blue; the tint always depended on the quality of the sound, not on the note, and its intensity varied with the instrument. The color sensation evoked by an orchestra depended also upon the quality of the combination of sounds. The impressions caused by seeing color and by hearing sound were of the same nature; the one aroused the other. The scraping of the bow on the finest string of the violin caused a blue spot to appear before my eyes; the sight of this detested blue made me hear sharp sounds or the letter *i*. I extended these associations to my sentiments of affection; certain persons had a halo of red or blue according as I liked or disliked them. These sensations were extremely intense from the age of nine to that of fourteen. I was then in very bad health and excessively nervous. As my health became reëstablished I paid a good deal less attention to these phenomena of color-hearing, and when I took a new survey of myself, some years ago, I found that these vowels, read or heard, no longer gave me the sensation of color. One remembrance remains very clear with me; when I hear certain letters or certain sounds, I sometimes think of the colors formerly called up by them, and can occasionally cause a feeble image of them to reappear, but the vision has not been produced spontaneously for a long time now. I never knew any member of my family who was affected with color-hearing."—*New York Medical Journal.*

## PRACTICE.

### THE PROCESS OF MAKING ELASTIC FILLED CAPSULES.

THE use of elastic filled capsules is constantly increasing as their merits become more generally known, there being no other equally advantageous method of exhibiting nauseous oils, balsams, tinctures, et cetera. There are no secret processes connected with the manufacture of these goods, and any one can engage in their manufacture. The formulas for making up the solution of French gelatine and glycerine, or sugar, are simple and generally known to the druggist. The molds for forming the capsule are made of a hard wood, highly polished and taking the shape and size of the capsule desired. These molds are affixed to spindles to enable the operators to conveniently dip, trim and strip the capsules. The proper thickness of the gelatine solution prepared in a water-bath, and the proper temperature at which such must be maintained, are, largely a matter of experience. The process in general is as follows: The molds, by means of their spindles, are affixed to convenient racks, and after being lubricated are dipped into the gelatine solution. They are then slowly withdrawn, and when the gelatine has firmly set on the molds the capsules are trimmed by passing a knife around the spindle close to the body of the capsule. The capsules are then, by a peculiar twist, slipped off from the molds, and are placed with the opened end upward upon suitably perforated sticks. They are then filled by a filling device, and are finally sealed up by passing a small round hardwood or bone stick, previously dipped in hot gelatine, across the opening, thus finishing the product. The filling and sealing of the capsule are very simple, and can be done by any boy or girl. The most particular and difficult part of the manufacture is the dipping of the molds and the stripping operations, and this requires some experience, which, however, is soon learned under tuition. Elastic capsules cannot be made advantageously unless manufactured on a large scale, inasmuch as the gelatine must be used rapidly to avoid decomposition when in heated solution. A large number of molds are also required, so that the operations of lubricating, dipping, trimming and stripping may be all going on at the same time. The finished capsule is highly elastic, and readily soluble in the stomach. Each dose is an individual shell. They can be conveniently boxed and carried. Their main advantage is that the medicines are exhibited without excipient, such as is required in making pills or tablets containing similar medicaments. The only disadvantage of elastic capsules is the fact that, owing to the uncertainty of the druggist as to the formulas wanted, he is either obliged to carry a large stock or else oblige his customers to wait until such as are wanted can be sent for. This delay is very often annoying, and especially in cases where prompt medication is indicated. This defect has been entirely overcome by the more recent invention of the Merz Capsule Company, of Detroit, Michigan. This firm are preparing in all sizes the empty elastic shells of capsules, sealed air tight. These shells keep almost indefinitely and are always ready for instant use. They place the druggist in the position of manufacturer without any expense to him. With boxes of one thousand capsules they furnish the necessary appliances gratis for filling and sealing the capsules, and the druggist can be ready to prepare his own filled capsules within five minutes after receiving the outfit. The prices of the empty shells are reasonable, and will save the druggist a considerable sum on the cost of his capsules. He need not carry a large stock, and he can serve physician and patient promptly. Prominent druggists who often say: "We are too busy to bother with making our own filled capsules," after having once tried the work are enthusiastic supporters of this convenient article, and many druggists in comparatively small cities are using several thousand per month. The Merz Capsule Company will gladly give any additional information desired, and will submit samples and prices on application.

## CLINICAL NOTES.

Security Against Imposition.—This heading is suggested by the new advertisement of the Antikamnia Chemical Company, which appears in this issue. Antikamnia, while not suffering anything like other standard preparations from substitution, has still found it in some few instances. To the end, therefore, that there may not be even the breath of suspicion against antikamnia, as well as to give every doctor the fullest confidence, the company has gone to the expense of withdrawing all the old stock from the market and replacing it with new. In the new form the drug is identically the same chemically and medicinally as it always has been, but every tablet bears imprinted upon it a monogram. (See advertisement). Every package of powder or tablets is so wrapped and sealed, and resealed as to render counterfeiting impossible. The entire profession should insist upon the safeguards provided, and there can be no question but that this action will be regarded with great favor by them. The latest edition "antikamnia and codeine" tablets, can be obtained direct, or from your druggist. Each tablet contains four and one-half grains antikamnia and one-fourth grain codeine.

Trional as a Hypnotic for the Insane.—In no class of cases are the qualities of a hypnotic more severely tested than in the conditions of sleeplessness occurring so frequently in asylums for the insane. Yet it is in these very obstinate cases that trional has shown itself an ideal sleep-producer, being prompt, safe and reliable in action and devoid of unpleasant after-effects. Attention to its value in asylum practice has been called by Doctors Mabon, Randa, Brie, Collatz, Schultze, Garnier and others, and quite recently Doctor Schlaugenhausen communicated to the medical society of Styria his experience with trional at the provincial insane asylum at Feldhof, of which he is the director. During the past year the new hypnotic has been thoroughly tested in a number of cases of various phychoses. In the vast majority, especially in chronic mental diseases attended with sleeplessness, the remedy was given with complete success. The patients enjoyed sleep of six to eight hours duration after administration of 1.0–2.0 grammes, and no unpleasant after-effects were observed. In acute psychoses, however, its action was not quite as satisfactory, but it should be borne in mind that in conditions of extreme mental excitement no single hypnotic will be efficient in every case. Schlaugenhausen formulates the results of his experience in the following words: "Trional is a reliable hypnotic in most instances and must be considered a valuable addition to our list of remedies. It will gain a firm foothold among sleep-producers."

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### TYROTOXICON POISONING.*

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IN the "Universal Lexicon of Practical Medicine and Surgery," published in the German in Leipsic in 1849, is a five page article under the heading "Tyrotoxicon." It begins thus: Tyrotoxicon (from τυρός, cheese, and τοξικόν, poison) —cheese poison. With this name we designate the poisonous principle which is produced in cheese through putrefaction. Cases have often been observed in which the ingestion of old cheese has been followed by poisoning, some cases of this kind having been observed quite recently. The remarks herein contained are from the small work entitled, "Experiments and Observations upon Oxalic Acid, Sausage and Cheese Poison," from the English and Latin, by C. G. KUHN, Leipsic, 1824." The article quoted begins with a description of the process of cheese-making, and describes casein and caseic acid. It then takes up the various ways in which cheese may take on poisonous properties, considering these under three heads, namely:

(1) By means of the milk used in its manufacture.

(2) By means of substances incorporated in the cheese during its manufacture.

(3) By means of the products of putrefaction.

Under the first head, that of milk, are cited various instances in which milk was affected by the animals feeding on poisonous herbs, or by the animals being bitten by snakes or rabid dogs.

Under the second head, of foreign substances, is cited a case of poisoning from mouldy cheese supposed to be caused by a fungus, a species of mucor, which was found in great abundance. The symptoms in this case, however, are strongly indicative of the presence of tyrotoxicon. All of the thirteen who partook of the cheese were taken with nausea and vomiting, followed by severe diarrhea, leaving them in such an exhausted condition that they were scarcely able to move their limbs. After the cheese was thrown away it was picked up and eaten by seven servants, all of whom suffered from vomiting, diarrhea and abdominal pains. Four of the seven were obliged to remain in bed a whole day, and on the following day resembled people who had just recovered from a severe illness. Under this head is also mentioned a case in which twenty-four persons were poisoned by cheese containing hyoscyamus seeds which had been put in by mistake for the much used caraway seeds. Cases of poisoning by metallic salts are also cited at some length.

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*Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

Under the third head, poisons arising by putrefaction, the author states that it is confirmed by the most authentic observations that cheese can of itself take on so noxious a character as to endanger the health and even life itself. The so-called schmierkäse and barschekäse or sharp cheese are especially apt to be poisonous, as these forms are allowed to putrefy before being used. It has been placed beyond doubt by many observations and experiments that other animal substances in a state of putrefaction are detrimental to health; this must also be true of cheese. He cites a case mentioned by Pyl of a butcher in Tübingen, who, with his three children, ate about a quarter of a pound of schmierkäse. Within an hour all were taken with burning sensations and pain in the abdomen, anxiety, vomiting and painful diarrhea. The younger child, a girl of four years, was taken with convulsions and died on the following day. The rest of the cheese was examined chemically, and no trace of copper, arsenic, or lead was found.

Another case is cited in which thirty persons were poisoned by barschekäse or sharp cheese, which is made by allowing the curd to stand in little heaps till it becomes semifluid through putrefaction. All of these exhibited the usual symptoms of gastro-intestinal irritation, and one death occurred. It is remarked that those who vomited most copiously were relieved thereby and were able to leave their beds the following day, suffering only headache, depression and loss of appetite.

Another case is cited which is especially interesting from the vivid description, the translation being literal. "Two men made a breakfast of this same sort of cheese with bread and butter. One went immediately into the field, and after a few hours noticed a heaviness of the head, anxiety and painful sensations in the abdomen, and pressure upon the chest. These symptoms became worse and were followed by dizziness and nausea. He was obliged to return to his home, where he was taken with severe vomiting and copious diarrhea. After that the other symptoms disappeared and left only extreme weariness. The other man who had breakfasted two hours later, came to dinner with tenderness in the abdomen and complained of dull pain and pressure in the head. With great difficulty he ate two plates of chicken soup during which he turned alternately red and pale. Finally he arose from the table ashy pale, staggering into the front part of the house where he fell upon the floor like a lifeless machine. He stretched out his hands and feet, his eyes being open, and from a large wound on the lower jaw, caused by the fall, came not a drop of blood. He was immediately raised from the floor, copious vomiting set in, and the previously dry wound began to bleed. In this case diarrhea did not occur, and after the vomiting he experienced no unpleasant sequelæ."

Although this lexicon appeared in 1849, and the name tyrotoxicon seems to have been generally adopted at that time, **Kühn**'s work published in 1824, is the only authority quoted, though we learn from other sources that **Hünnefeld** and **Sertürner** had made extended observations previous to its appearance.

In 1827, **Hünnefeld** experimented with poisonous cheese and came to the conclusion that the poison was due to fatty acids. **Sertürner** made some experiments about the same time and came to the same conclusion.

In 1848 **Christison** called in question the fatty acid theory of the previous observers, and in 1852 **Schlossberger** made experiments with the fatty acids and demonstrated their freedom from poisonous properties.*

After the overthrow of the fatty acid theory no progress was made in the isolation of this poison until **Vaughan** began his experiments in 1883–4. In these years about three hundred cases of cheese poisoning were reported to the Michigan State Board of Health. **Vaughan**, to whom the cheese was sent for examination, reported substantially as follows: "All of the three hundred cases were caused by eating twelve different cheeses. The cheeses were in good condition and there was nothing either in taste or odor to cause suspicion. A cat was kept seven days and furnished only poisonous cheese and water. It ate freely of the cheese and manifested no untoward symptoms. After seven days the animal was etherized and abdominal section made. Nothing abnormal could be found. I predicted, however, in one of my first articles on poisonous cheese that the isolated poison would affect the lower animals. This prediction was afterwards verified. * * * At first I made an alcoholic extract of the cheese. After the alcohol was evaporated in vacuo at a low temperature, a residue consisting mainly of fatty acids remained. I ate a small bit of this residue and found that it produced dryness of the throat, vomiting, and diarrhea. The mass of this extract consisted mainly of fats and fatty acids, and for some weeks I endeavored to extract the poison from these fats, but all attempts were unsuccessful. I then made an aqueous extract of the cheese, filtered this and drinking some of it, found that it was also poisonous. This aqueous extract was neutralized with sodium carbonate and agitated with ether. The ether was removed and allowed to evaporate spontaneously. As the ether took up some water, the residue consisted of an aqueous solution of the poison. After this was allowed to stand some hours over sulphuric acid in vacuo, the poison separated in needle-shaped crystals."

These extracts are taken from **Vaughan** and **Novy**'s "Ptomaines and Leucomaines," published in 1891. In this same work he says further:

"To this ptomaine **Vaughan** has given the name tyrotoxicon (τυρός, cheese, and τοξικόν, poison)." He was anticipated in the use of this word some forty years, as we see by reference to the "Universal Lexicon," of 1849, previously quoted. The word had probably been in use some years prior to the publication of this work. It would hardly find entrance into a work of this kind unless it had been accepted by the scientific world and tyrotoxicon recognized as an entity. **Vaughan** himself has lately acknowledged that the word has been in use over fifty years. In *The American Cheesemaker*, for November, 1893, in a letter dated October 20, he says, in reply to **Doctor Hurd**:

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* **Vaughan**: "Ptomaines and Leucomaines."

"In Doctor Hurd's letter I find two or three statements which are amusing to one at all familiar with the history of cheese poisoning. He desires to know why cheese poisoning has occurred only within the last few years. Everyone at all familiar with the subject of foods—and evidently the Ohio food inspector cannot be accused of this familiarity—knows that cheese poisoning has been reported for more than a hundred years in certain countries, and the word 'tyrotoxicon,' which simply means cheese poison, was used more than fifty years ago."

In 1887, Vaughan found that the evaporation of an alcoholic solution of tyrotoxicon, treated with platinum chloride on the water bath, was followed by a violent explosion. This reminded him that diazobenzol forms with platinum chloride highly explosive compounds. Diazobenzol compounds were accordingly experimented with and found to give the same results as tyrotoxicon, both chemically and physiologically. After giving in detail the various phases of the analysis of these two substances, he says:

"This analysis established the identity of tyrotoxicon and diazobenzol. Chemists will now appreciate the great difficulty that has been experienced in isolating the active agent of poisonous cheese. The readiness with which diazobenzol decomposes is well known. When warmed with water, it breaks up into carbolic acid and nitrogen. Hydrogen sulphide decomposes it, therefore all attempts to obtain the poison by precipitating it with some base, such as mercury or lead, and then removing the base with hydrogen sulphide, have failed. Moreover, diazobenzol is only a transition product of putrefaction. I have frequently found that leaving milk rich in the poison in an open beaker for twenty-four hours would be sufficient to destroy the whole of the poison."

He recommends that the physiological test be made in all cases. In procuring suspected milk for analysis a considerable quantity should be obtained, and should be kept in well-stoppered bottles.

Attention is called to the fact that cholera infantum is most prevalent under conditions most favorable to putrefactive changes in milk. "Many poor families in the cities do not receive their milk until it has begun to sour, and it is then kept at a high temperature, and often in a most vile atmosphere." He adds: "I would not claim that decomposed milk is the sole cause of summer diarrheas of children, nor do I claim that tyrotoxicon is the only poison that may be developed in milk. It is only one of a large class of bodies which are the products of putrefaction, and many of these are cathartic in action."

Attention is directed to the necessity of withholding milk in any form during attacks of summer diarrhea, as, under certain conditions, the poison may develop in the alimentary canal. Meat preparations and rice or barley water are suggested as substitutes for the milk diet.

There is no longer any doubt that tyrotoxicon is a ptomaine. The germ that produces the poison is not exactly known, though Vaughan says that it is either the butyric acid ferment, or some ferment which is frequently developed along with the bacillus butyricus, because he has found that "if some butyric acid ferment be prepared according to the method usually followed in making butyric acid, and milk be inoculated with this and allowed to stand at the temperature of the body for a few hours, or at the ordinary temperature of the room for several days, the poison will appear. Moreover, it is well known that the bacillus butyricus grows best in the absence of air; we have already seen that the exclusion of air favors the development of tyrotoxicon." This latter statement, however, carries no weight, as it simply shows that tyrotoxicon is a development of one of the anaërobic species whose name is legion.

To whatever germ the development of this poison may be due, the conditions most favorable to its development have been well recognized, and may with proper care be avoided. Experience has shown that the poison develops most rapidly in milk from which the animal heat has not been extracted, that is, milk that has not been cooled immediately after milking. Proper cooling and aeration with proper hygienic surroundings will prevent the formation of this poison so dangerous to health and life.

I am inclined to think that the development of the poison in cheese is usually due to the use of milk in which the poison is present, though it may develop in the cheese during the process of manufacture on account of unhygienic surroundings or improper handling. I believe that tyrotoxicon may be produced in the cheese itself during the process of curing, from germs previously introduced either with the milk or in the process of manufacture. The reasons for this belief will appear later.

As regards my own experience with cheese poison, in connection with the health department, the circumstances were as follows: On November 11, 1893, a sample of cheese was sent to the health office for analysis, with the report that it had made several people sick. The sample was sent by G. B., an employe of A. W. & Company, commission merchants, and was taken from a lot of thirteen cheeses received from a cheese maker in Jasper, Michigan. Before beginning the analysis I visited the commission house to learn further particulars in regard to the poisoning. I was unable to find Mr. B., but was informed by Mr. M., a member of the firm, that the poisoning had occurred in the family of Mr. B.; that three out of six persons who had eaten of the cheese had been taken sick; that large quantities of cheese had been eaten, and that the sickness had not been severe, consisting simply of nausea and vomiting. I learned afterwards that Mr. M. had stated the case altogether too mildly, probably on account of financial interest in the cheese. I gave explicit instructions not to sell any of the cheese nor allow it to pass into other hands until the result of the analysis should be made known.

From the mild statement of the symptoms of the poisoning received from Mr. B., I suspected the presence of copper or zinc sulphate which I understand is sometimes used to prevent huffing or bulging of the cheese during the process of curing. Tests for these metals proving negative, I began an analysis for tyrotoxicon. My experiments were interrupted, however, and could not be resumed until December 7, when I obtained a fresh sample of the cheese, and resumed the analysis. My first series of tests, though carefully carried out, proved entirely negative. On Saturday, December 9, I made a fresh solution to begin another analysis. I was anxious to come to some conclusion in regard to the matter, and decided to try the physiological test. Mr. M. had stated that he had eaten a piece of the cheese as large as his hand with no unpleasant effect. I decided to begin with a small dose and gradually increase it until some effect was obtained. Accordingly I ate five grams on Saturday, December 9, at 11 A. M. I took lunch at 1 o'clock and experienced no effects whatever. On Monday, December 11, at 11 A. M., I ate ten grams cut off near the place from which the five grams had been taken two days before. I took lunch at 12:30. At about 2 P. M. I experienced a sense of uneasiness, and soon after had a slight headache with a sense of constriction at the temples and some nausea. A fit of vomiting at about 2:30 relieved me of my dinner, after which there was some relief for about half an hour, following which there was another attack of vomiting and an ordinary movement of the bowels. Occasional vomiting and retching continued, accompanied by intense thrist. The vomit-matter consisted mainly of mucus and water of which large quantities had been taken. Beginning at 3:30 P. M., profuse watery stools intervened at periods of about half an hour. Between 5 and 6 o'clock I was somewhat relieved and slept for half or three quarters of an hour. The increased exhaustion following each stool was very marked. A profuse watery stool about 6 P. M. was succeeded by a fainting spell, quickly followed by another. As soon as this condition was discovered, I was put to bed by a number of medical friends who happened to be in my offices, and DOCTOR HICKEY, who was present, took charge of the case. As I was semi-unconscious after this time, I have requested DOCTOR HICKEY to make a statement of the symptoms as he observed them. The doctor writes as follows:

"On December 11, I called to see DOCTOR L. S. HARVEY. I found the doctor lying on a lounge in his office, and the first glance convinced me that he was seriously ill. On questioning him I found that he had eaten some cheese, as is given in the account which he himself has written. I urged him to go to bed at once and after some hesitation he consented. Before doing so he went to the closet, and while there fainted away twice. Upon getting him back to his room he fainted a third time. His countenance was very pale and had a wan, thin expression. The pulse was very weak and at times not perceptible at the wrist. Feeling quite alarmed I at once gave him a hypodermic of nitroglycerin, grain 1–100. This revived him a little, and a few minutes after he had an involuntary evacuation of the bowels. The passage consisted of thin mucus, with shreds brightly colored with unclotted blood. The extremities were cold and the circulation impaired to the extent indicated by the feebleness of the pulse. As so long a time had elapsed since the eating of the cheese, and as there had been such a free cleansing of the alimentary tract by emesis and purging, I thought if the period of depression could be tided over by the free use of stimulants, the nervous system would rally. As the effect of the nitroglycerin was transient, I gave the doctor a hypodermic of strychine sulphate, grain 1–30. He was enveloped in hot blankets and rubbed vigorously. This had the effect of not only warming the extremities but also of relieving the cramps of which the patient complained quite bitterly at times, referring most of them to the right leg. Periods of depression intervened at intervals of about ten minutes. During these there would first seem to be a partial loss of consciousness attended with a marked cardiac weakness. At these times hypodermics of brandy were administered with very gratifying results. Under the free use of stimulants the periods of depression became less frequent and the loss of nerve force less evident. As the patient slowly rallied he complained of intense thirst; this was accompanied by nausea. A general restlessness now manifested itself, and for some time he tossed from side to side of the bed, being quiet only as the attacks of depression came on. Pain in the epigastrium was relieved by counter-irritation. The pain continuing lower down along the alimentary tract, camphorated tincture of opium was administered in drachm doses every half hour for three doses. The subsequent treatment consisted in the exhibition of fluids in small quantities until the gastric membrane had regained its tolerance of larger amounts."

After my recovery I further investigated the subject, and was informed by Mr. B., the gentleman who had sent the first sample of the cheese to the health office, that three out of five members of his family who had partaken of the cheese had been made very sick with nausea, vomiting, purging and abdominal pains. I also discovered that a part of the same cheese had been sold to J. C., a grocer on Grand River avenue. From this source I was able to trace two cases of poisoning. C. H., a clerk in Mr. C.'s store, reported having suffered nausea, vomiting and slight diarrhea after eating some of the cheese. C. S., a young man employed at the Cass market, was taken with nausea, vomiting and profuse watery stools, after eating some of the cheese in C.'s store. Mr. C. himself claimed to have eaten a considerable amount at various times without any bad effects. He could give no account of the parties to whom he had sold the cheese but had received no complaints. The remainder of the cheese was seized and destroyed.

There were in all six cases of poisoning out of ten persons who ate of the cheese. I attribute the escape from poisoning of some of the persons who ate of the cheese to the fact that some parts of the cheese were free from the poison. I think that individual germs in different parts of the cheese formed colonies in whose vicinity the ptomaine was very abundant. This would also explain the fact that in my own case five grams produced no effect, while ten grams proved almost a lethal dose. Certainly the amount of poison contained in the two doses was not proportional. The chemical tests for tyrotoxicon were subsequently made both by Mr. Boradaile, our sanitary expert during my illness, and by myself after my recovery, and repeated experiments proved its presence in the entire lot of thirteen cheeses which were turned over to the garbage company and destroyed. Inasmuch as the cheeses were intended for barrooms it is fortunate that the attention of the health department was called to the matter before a wholesale poisoning had taken place. Mr. Boradaile made the important discovery that heating the watery extract on the water bath at about 70° centigrade for some time previous to filtration, precipitated the soluble casein, which could be removed by filtration, making the subsequent manipulation much more satisfactory.

A history of the case, with the name of the cheesemaker, was reported to the State Board of Health. We have not yet learned what action they have taken in the matter.

## REFLEX PARALYSIS OF THE ORGANS OF PHONATION; RECOVERY.

By J. R. Dodge, M. D., Hudson, Michigan.

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On the 18th day of February, 1892, during the prevalence of an epidemic of the grippe, I was called to see Miss A. J., of this city, a student, aged eighteen years. She was apparently in robust health, but had scrofulous antecedents, her mother having died some years ago of tuberculosis. A clinical examination of the patient disclosed nothing—no fever, no acceleration of pulse, no cough, nor dyspnea—in fact, aside from complete loss of voice, except in a very faint whisper, there was nothing abnormal in her condition. A laryngscopic examination of the vocal cords showed them to be immovable upon attempts at phonation. There was no perceptible edema or catarrhal inflammation of the parts involved in speech.

There being no suspicion of any tuberculous deposits, either in the lungs or larynx, the conclusion was reached that the existing aphonia was wholly due to reflex causes. I had no hesitation in assuring the patient and her friends that she would recover her voice in a short time.

Strychnia and iron were ordered in connection with other measures calculated to effect her general health. Later, electricity was added to the other treatment and this continued over a period of about three months. The results were entirely negative. Becoming satisfied that medical treatment would be of no avail in her case I turned her over to a specialist, who made a very careful examination of the interior of the larynx and thought he discovered ulcerations, for the relief of which local applications, by means of compressed air, were made daily for several weeks. Still, the case appeared rebellious to all treatment. After this, for a period of six months, the patient was left to her own resources, with plenty of outdoor exercise, good hygiene, et cetera.

Finally, fearing that the long-continued disuse of the vocal muscles might lead to atrophy and consequent permanent loss of voice, I ordered a residence of a year, if necessary, in a different climate. Oklahoma was selected, not so much on account of climatic conditions as on account of convenience. The experiment was tried, but still there was no advance in the direction of relief. The patient returned home, married and settled down to make the best of what seemed to her and her friends a life affliction.

I had been promising the patient and friends all along that sooner or later the voice would return as suddenly as it had left, but I am willing to admit that I had become about discouraged, fearing that the muscles from disuse so long had become atrophied. One day in April last, a little over two years from the date of her trouble, she went out into the barnyard, accompanied by the family dog. One of the cattle made a plunge for the canine, which so frightened the lady that she screamed from fear. Her voice had returned in full force and for fear of losing it again she kept on talking constantly until her husband returned, who at the time was absent from home. It is now about four months since her voice came back and it remains complete and perfect. Her general health is good. The point of interest in this case is the length of time during which the muscles of phonation were in disuse and the lack of injury sustained.

# THE SEQUELÆ OF DIPHTHERIA.*

By DAVID INGLIS, M. D., Detroit, Michigan.
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[Published in The Physician and Surgeon exclusively]

In diphtheria we are dealing with a disease in which, with a distinct local manifestation, it is clear that we have also a constant systemic infection. Whether the systemic infection is primary or secondary, has but little bearing upon the question of the sequelæ of diphtheria. The fact of importance is that during the existence of the disease some poisonous substance, let us call it a toxine, is carried to all of the tissues of the body. This poison is a protoplasmic poison. Its destructive effect upon protoplasm seems to be pretty general and this explains the variety of sequelæ of diphtheria. This poison is evidently closely analogous to similar poisons generated in typhoid fever, small-pox, scarlet fever, measles, rheumatism and gout, for we may have the same sequelæ following each of these diseases. The toxine of diphtheria undoubtedly exerts its effects upon protoplasm generally, and according as it affects one or other part of the body, the sequelæ vary. It has, however, preferences, and while we might enumerate a considerable list of sequelæ, the list, for all practical purposes, can be reduced to two—the affections of the kidneys, and of the nervous system.

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* Read before the Detroit Medical and Library Association.

The renal affection is, in reality, very common, but fortunately when present is by no means as severe in type as in scarlet fever. A careful examination of the urine will show the presence of albumin in a large proportion of the cases of diphtheria. The evidences of a severe grade of inflammatory action in the kidneys—casts, blood and suppression of urine—are of infrequent occurrence. General anasarca is exceedingly rare after diphtheria. It would seem as if the poison of diphtheria did not tend so much to set up an active inflammation as a protoplasmic degeneration. This would explain the very common occurrence of albuminuria without other inflammatory products, and agrees with the known facts in regard to the pathological changes in the nervous affections of diphtheria.

The sequel of diphtheria of greatest practical importance is diphtheritic paralysis. This has been recognized for upward of one hundred and twenty years, but our understanding of the condition has only become accurate since the comparatively late recognition of multiple neuritis. Diphtheritic paralysis is, to all intents and purposes, a multiple neuritis. It is true that the same poison which acts on the nerve protoplasm may cause degenerative changes in the muscular substance directly, but we are safe in considering cases of diphtheritic paralysis as practically cases of acute toxic degeneration of the nerve tracts. The process is essentially a parencymatous neuritis as distinguished from an interstitial neuritis. There is no increase of the connective tissue of the nerve, but the changes are confined to the interior of the nerve sheath; the white substance is broken up, some new leucocytes are found within the sheath, the axis cylinder persists, as a rule. The process seems more like a degeneration of the nerve than a true inflammation. The appearances closely resemble those in a cut nerve.

The fact that the process is not accompanied by proliferation of connective tissue explains the well-known fact that patients who do not die usually make a complete recovery from the diphtheritic paralysis. As rapidly as the regeneration of the myelin substance takes place there follows the restoration of function. There is no later process of hardening and shrinking of the nerve trunk. Hence it is that, while the symptoms of diphtheritic paralysis closely resemble those of lead or alcoholic paralysis, there is no such tendency to marked and obstinate muscular atrophies as occur in those forms of toxic neuritis.

The only exception to this general rule is found in this: while the toxine of diphtheria affects by preference the nerve tracts, acting mainly upon medullated fibres, it affects to some extent the nervous elements in the cord. If now, the cells of the anterior cornua are degenerated, as they occasionally are, there may follow a degeneration of the corresponding fibres and an atrophy of the related muscles. This is the explanation of the exceptional cases in which, while the patient recovers entirely from most of his diphtheritic paralysis, he still retains evidence of the paralysis in certain limited muscular areas which remain atrophied and inert.

The nerves affected by the toxine may be of any conceivable distribution. Hence, the symptoms vary indefinitely. There may be motor paralysis anywhere. The sensory nerves are similarly involved. The nerves of special sense and the visceral nerves—any or all—may be degenerated. So we may have loss of hearing, taste, smell or sight. The impairment of sight is the most common, but is due usually not to optic nerve degeneration, but to motor paralysis of the muscles of accommodation. The motor paralysis usually involves, first, the pharyngeal muscles and those of the eye; many cases go no further. This passes off in two or three weeks, and the case comes to a speedy recovery. In the more serious cases other groups are involved. It is characteristic of diphtheritic paralysis that not all members are affected at once, but one portion becomes paralyzed just as some other portion is nicely recovering. In this way the patient goes through a series of paralyses for a period of two or three months. Sensory paralysis usually accompanies the motor defect. Neither paralysis is usually complete but sensation suffers less than motor power, as a rule. There is usually but little pain; the patient has simply sensations of numbness and tingling. The danger of diphtheritic paralysis lies mainly in the paralysis of the nerves innervating the heart, the respiratory muscles and the throat.

Difficulty in swallowing may lead either to pneumonia from foods entering the windpipe or to rapid exhaustion from inability to take sufficient nourishment. Too close attention cannot be paid to the matter of feeding. I wish to emphasize in this connection my great confidence in inunctions of cod-liver oil as an adjunct to other methods of feeding. I am thoroughly satisfied that in all forms of starvation the repeated, free and frequent inunction of cod-liver oil will supply a very considerable amount of nourishment to the patient.

Paralysis of the muscles of respiration is a very rare cause of a fatal termination. This is so because the diaphragm and the intercostal muscles are very rarely affected at the same time. If one or other is capable of action life will go on.

Cardiac failure is the most threatening danger of all. We are unable to say whether the cardiac failure is always due to degeneration of the vagus or to degeneration of the intra-cardiac ganglia or of the heart muscle. It is probable that in different cases one or the other may be involved. The practical result is that no case of diphtheria can be regarded with confidence in view of this complication. Cardiac failure usually occurs, just as the other forms of diphtheritic paralysis, some two or three weeks after the original diphtheritic affection, but it may occur early.

I shall never forget being called to a family whom I had not personally known. Introducing myself, the mother pointed to a vigorous little fellow who sat in his high chair eating a bowl of bread and milk with gusto, and said, this is your patient. She apologized indeed for sending for a physician, but said the boy had been complaining a little—somewhat feverish and chilly at times. Instead of prescribing for some febricula, some good angel put it into my min to look in the child's throat, when to my horror I found it wholly covered with diphtheritic exudation, both tonsils, the soft palate and the entire pharynx. I showed it to the astonished mother and gave a grave prognosis. The child climbed down, ran out to swing on the gate and resisted vigorously being taken in. Eight hours later the child sank away in its father's arms without a struggle. The amount of poison overwhelmed the innervation of the heart at once. I always look in the throats of sick children since then, for had I not done so on that occasion I should have had no explanation of the child's death to offer, and even a post-mortem would in all probability have revealed nothing, for the child made no complaint of its throat and the pharynx is not usually examined.

Cardiac failure, like the other forms of diphtheritic paralysis, may occur after very mild attacks of diphtheria. The practical lesson is, that, in every case, we should warn the parents or attendants of this danger. The general rule, however, is that severe forms of diphtheritic paralysis usually follow severe forms of diphtheria. A close watch for any change in the rhythm of the pulse is a very necessary precaution, and when found, absolute avoidance of every possible strain upon the heart the most urgent indication.

In regard to the treatment of the motor paralysis the most judicious thing is to aid the metabolic processes of the body generally, so as to facilitate the regeneration of the myelin substance. I believe that cod-liver oil and arsenic are of vastly more importance than electricity. Patients have a romantic faith in electricity. Practically, the restoration of function follows quickly upon the regeneration of the nerve. Judicious galvanization will help to keep the muscles in good trim, ready to respond when the nerve is ready to conduct, but faradism is of little or no value. Injudicious galvanism of the affected nerve trunks may retard the process of regeneration.

One thing more deserves to be added. The toxine of diphtheria may cause degeneration of the walls of the vessels, and so, may cause a true cerebral lesion with ordinary hemiplegia. Again, the protoplasmic poison evidently causes a widespread nutritive defect in the entire nervous substance, even when no localized symptoms appear. This is shown by the fact that in a very large proportion of cases of diphtheria, even in those not accompanied by paralysis at all, the knee-jerk is lost. The practical bearing of this fact is this: children convalescing from diphtheria ought not to be put at their studies, nor ought they to be subject to any avoidable expenditure of nervous force for some considerable time. I believe that a careful attention to this point would avoid what we all have so often seen—children developing some nervous or physical defect some time after an attack of diphtheria or remaining permanently damaged, obliged to go through life handicapped by a kind of general weakness.

## ONE HUNDRED CONSECUTIVE OBSTETRICAL CASES.*

BY W. H. HAUGHEY, M. D., BATTLE CREEK, MICHIGAN.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

HAVING always been rather partial to the practice of obstetrics and gynecology, I determined, on leaving college, to keep an accurate record of my obstetrical cases for reference and guidance. This paper partakes more the nature of a report with a view to drawing practical deductions than to suggesting anything new in the handling of these cases. There is no part of our professional labors that subjects the physician to more severe and uncharitable criticism than the manner in which he conducts his obstetrical cases. While one hundred cases are too few to prove anything definitely, yet they will, like straws, show which way the wind blows. One of the most striking observations is, that when a record of cases is kept a physician discovers that he does not attend as many as when no record is kept.

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*Read before the CALHOUN COUNTY MEDICAL ASSOCIATION, at Albion, Michigan.

I attended my first case, March 24, 1888, and my one hundredth November 10, 1892, which date covered the first four and one-half years of my practice. Of the one hundred cases, thirty were primiparæ, forty multiparæ; four breach presentations, three footlings, one transverse, ninety-two head; one hundred and two children, fifty-seven boys, forty-three girls, two sex not determined, nine stillborn, five lived less than eight hours.

*Breach Presentations.*—Two were premature at six and seven and one-half months. The one born at six months was stillborn, and the one at seven and one-half months lived three hours. The remaining two were born at full term, one living nine months and dying of whooping-cough; the other still living, five years old.

*Footlings.*—The first, born at seven months, lived only two or three hours; second, full term, male, nearly asphyxiated, but finally breathed, is still living, three years old. The third child lived, and is three years old. Lusk says: "In foot and breach presentations the prognosis for the mother is generally favorable, but lacerations are liable to occur from forcible delivery of the head through the undilated cervix," which prognosis my records confirm, and also seem to point to a favorable prognosis for the child if the mother has arrived at term and the accoucheur is capable.

*Transverse or Shoulder Presentations.*—Lusk says: "A horizontal position of the fetus, with both extremities occupying the same level, is the rare exception. Usually the child lies obliquely with the head resting upon the iliac fossa. When the uterus contracts, the shoulder is usually pressed down into the lower uterine segment; hence, shoulder and transverse presentations are frequently employed as synonymous expressions." Churchill gives a frequency of transverse presentation of one in two hundred and fifty-two; Spiegelberg, one in one hundred and eighty; Depaul, Dubois and Pinard, one in one hundred and seventeen. The prognosis is grave for both mother and child unless spontaneous version occur before rupture of the membranes, which, in my case, did not occur, and after rupture the amniotic fluid drained away. The child occupied the first position or head to left with dorsum anterior. After rupture of the membranes the fluid escaped and the right arm prolapsed. The child remained fixed. Doctor French was called and after giving chloroform I secured a foot and delivered a dead child. The child was alive before the membranes ruptured. The mother made a good recovery. Delivery occurred at seven months.

*Head Presentations.*—Spiegelberg found that in over ninety-seven per cen of ninety-three thousand eight hundred and seventy-one cases the cranial vaul presented; that the back of the child in utero is directed to the left side of th mother in seventy per cent. of cases, and to the right side in thirty per cent I regret very much that I have kept no record as to these uterine positions, or c the positions of the head in relation to the pelvic diameters in normal head pr sentations. **Naegele** first pointed out that the head in an overwhelming proportion of cases occupies the right oblique diameter, which statement I am inclined to believe correct, but in the absence of records I cannot give positive figures.

*Occipito-Posterior.*—**Uvedale West**, according to **Playfair**, found the frequency of the rotation of the occiput backward into the hollow of the sacrum to be four in one hundred. In my one hundred cases it occurred three times. **Lusk** says: "Delivery in these cases is apt to be tedious and often demands the aid of forceps." My three cases demanded forceps. The first after eighteen hours, second after twenty-two hours, and third after twelve hours. All the babies lived.

*Brow Presentations.*—**Ahlfeld** reports twenty-six cases, **Fritsch** seven, and **Budin** one, in which the results to both mother and child are given. In the thirty-four deliveries there were two maternal deaths. In one fatal case coxalgic oblique pelvis existed as a complication; in the other the brow spontaneously changed into a face presentation. There were ten spontaneous deliveries, the brow presenting, with four dead children, though one died previous to labor. Brow became converted into face in ten cases. Of these, one child died Fourteen children were extracted with forceps, nine with brow presenting—of which two were dead, one death resulting from prolapsed funis, the other occurring before labor. Five were delivered after conversion into face or vertex presentations, with no deaths. Thus, of thirty-four children, there were seven deaths, but four only could be attributed to the presentations. My own case was delivered with forceps, brow presenting, is living, and nearly four years old, but the mother suffered a laceration of the cervix.

*All other presentations* occupied some one of the four normal positions, namely: Right occipito-anterior, right occipito-posterior, or left occipito-anterior, left occipito-posterior. I regret that I have not kept the exact number of each of these positions. Of ninety-two head presentations, only four were abnormal.

*Immature.*—More than four months, less than seven. One at five months lived five minutes, two at six months, both dead. The father and mother of the first case rode twenty miles in a road-cart the day before labor, running horses whenever an opportunity offered; in the second case eclampsia was, previous to labor, a factor; and in the third the mother was married about one week previous to labor with great eclat—ball, et cetera.

*Premature.*—More than seven months. Five at seven months, two at seven and one-half, one at eight. Causes: At seven months—one due to death of fetus; one to falling down back steps; one to eclampsia; one to mother purposely causing labor; one unknown. At seven and one-half months—one twins; one syphilis, undoubtedly. At eight months—one twins.

Of these eight premature cases there were ten children, all of whom are now dead: two stillborn; four lived from one to six and one-half hours; of the two pairs of twins, all born living, the first at seven and one-half months, colored, lived, respectively, nine months and one and one-half years; the second at eight months, lived, respectively, nine and ten days.

*Eclampsia.*—**Lusk** gives the estimated frequency of eclampsia at about one in five hundred pregnancies, from which statement I derive great comfort, as according to this computation I have had my full number (four) for two thousand labors, which number I shall probably never attend, at least I sincerely hope I may never have another case of eclampsia.

During the nine years from 1867 to 1875 inclusive, there were four hundred and eight deaths from eclampsia reported in New York City, and the whole number of deaths of pregnant women during this period was three thousand three hundred and forty-two, which shows that one in every eight succumb to eclampsia. **Dohrn** gives a death-rate of twenty-nine per cent. in all cases of eclampsia. **Hofmeier**, in **Schroeder**'s clinic, a mortality of thirty-two and four-tenths per cent. **Brown**, of Vienna, twenty-six per cent. **Löhlein**'s statistics plainly show that the earlier in labor the convulsions occur the more unfavorable the prognosis, for in eighty-three cases in which the convulsions occurred before or during the first stage of labor, forty and five-tenths per cent. of the patients died. Convulsions occurred in all but one of my four cases in the first part of the first stage of labor. In that one there was no albuminuria, but in the other three it was present; and yet all four of the mothers recovered and are living to-day, two of them having borne children since without albuminuria or convulsions. Both these women had albuminuria before.

*Distocia.*—One case; multipara; sex could not be made out; spinabifida; cord not more than one inch long. Fetus and placenta expelled together as one mass, with eyes, nose, mouth, legs and arms. Child dead.

*Placenta Previa.*—**Müller** estimates the frequency of placenta previa at not quite one case in one thousand. **Lomer** estimates one in seven hundred and twenty-eight births. **Müller** estimates the total mortality, including deaths from puerperal causes, at thirty-six to forty per cent. **Lusk** states that nearly two out of three of the children are born dead, and that more than one-half of those living die within the first ten days. In my case the mother lived and made a good recovery. Child, however, was born dead.

DURATION OF LABOR.

| Hours in labor, | 1½ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 | 20 | 22 | 24 | 27 | 28 | 42 | 48 | 52 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of cases, | 3 | 8 | 9 | 8 | 4 | 4 | 4 | 8 | 3 | 3 | 2 | 14 | 1 | 3 | 4 | 5 | 2 | 4 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | —100 |
| Primiparæ, . | | | | | 1 | 2 | 2 | | 3 | 1 | | 5 | | | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | | — 30 |
| Multiparæ, . | 3 | 8 | 9 | 8 | 3 | 2 | 2 | 8 | | 2 | 2 | 9 | 1 | 3 | 1 | 3 | | 2 | 1 | | | | | 1 | 1 | — 70 |

Average duration, 11
Primiparæ, . 16
Multiparæ, . 9

**Spiegleberg** gives primiparæ seventeen hours; multiparæ twelve hours. **Hecker**, in primiparæ after the thirtieth year, twenty-one and one-tenth hours; **Ahlfeld**, in primiparæ after thirty-two years, twenty-seven and six-tenths hours. Two of my own primiparas were aged respectively thirty-one and thirty-six. The former was twenty hours in labor; breech presentation; living child. The latter was, after sixteen hours of hard suffering, delivered with forceps of a living, healthy child. Of the thirty primiparæ none were delivered in less than five hours, and only four exceeded twenty-four hours, namely: one in twenty-four, one in twenty-eight, one in forty-two, and one in forty-eight hours. The first three were normal; the one in forty-eight hours required the forceps. The longest normal multipara was forty-eight hours; one in fifty-two hours by the application of forceps.

*Of the fifteen cases* in which I found it necessary to apply the forceps, only four were primiparæ, the remaining eleven being multiparæ; but as there were only thirty primiparæ, and seventy multiparæ in all, the percentage is but very little greater in the multiparæ than in the primiparæ.

*Primiparæ.*—Causes: One case of twins, one of hyperesthesia of vagina, two in old primiparæ—one was thirty-six years of age.

*Multiparæ.*—Causes: One, brow presentation, three, occipito-posterior, three, cessation of pains from exhaustion (from eight to twenty hours of hard pains with no, or very little, progress), one, hydrocephalus, and three, eclampsia.

As above stated, eclampsia occurred in four cases—one primipara and three multiparæ. Primipara, at six months, had ten convulsions, and twenty hours of labor; breach; dead.

*Multiparæ.*— The first case was fifty-two hours in labor; no albumin; forceps; convulsions did not occur until after delivery; full term; living child. The second case was six and one-half hours in labor; albumin plentiful; three convulsions; forceps; child lived six and one-half hours. The third case was fifteen hours in labor; albumin plentiful; six convulsions—five before, one after, delivery; full term; stillborn; forceps. In each case I applied the forceps just as quickly as I could get the cervix sufficiently dilated.

Spiegleberg says the maximum frequency of births occurs between 12 and 3 o'clock in the morning. I regret that I have no record on this point. Of the one hundred cases, there were one hundred and two children: fifty-seven males; two sex not determined; and forty-three females. Fourteen were either stillborn or lived less than eight hours. Two died in less than ten days, thus leaving, in the one hundred births, eighty-six strong, healthy children. There were four lacerations of the perineum but no case of puerperal septicemia.

It is my practice to make frequent examinations of the urine of all pregnant women who engage me to attend them in their confinement. This often enables me, by employing appropriate and seasonable treatment, to conduct safely through a normal labor what might otherwise have been a case of eclampsia and possibly death. The examination of the urine of pregnant women is a duty that I fear is too often neglected, and I shudder for the physician who, in the light of our present knowledge, neglects this important responsibility.

The one thought that should be ever uppermost in the mind of the accoucheur is thorough and absolute cleanliness. My own plan is, on entering the sick chamber, to call for soap and warm water and proceed to thoroughly scour and cleanse my hands, paying particular attention to the nails, after which, if I have been dressing sores or handling anything from which I have cause to fear infection, I make a fresh solution of bichloride and thoroughly wash my hands in it. After satisfying myself that I can convey nothing infectious to my patient, I make a thorough vaginal examination, noting whether there is an old perineal laceration and its extent; the condition of the rectum in regard to feces; whether or not the urethra is swollen and sensitive to pressure; capacity and diameter of pelvic canal; the amount of cervical dilatation; whether the cervix is rigid or dilatable; if dilated sufficiently, the amount of amniotic fluid in the presenting sac; whether sac has ruptured or not, and the presentation of the child. Once satisfied on these points, I refrain from unnecessary frequency of examinations. After reporting everything satisfactory, I see that the bed is properly arranged, procure three strings and a pair of scissors preparatory to dressing the cord, and contrive to keep all present as busy as possible until the pains become severe and labor approaches anent. I then devote myself especially to the care of the perineum. If the patient is suffering greatly I give the nurse or the attendant who appears most competent a small bottle of chloroform, have her put a few drops on a handkerchief, and allow the patient to inhale the fumes thereof when she notices the pains approaching, but not during the intervals of pain. With one hand supporting the perineum, the other grasping the presenting part of the head, aiding rotation and holding the head firmly against the pubes, I am enabled, in the large majority of cases, to avoid a ruptured perineum; but as more ruptures of the perineum are caused by the shoulders than by the head, I usually insert the index finger, hook it under the arm farthest from pubes (lower when mother lies on back), make gentle traction and deliver that shoulder first. When this maneuver is successful, as it usually is, I have no ruptured perineum from shoulders. I now, if I have not already done so, place the hand of a nurse over the fundus of the uterus and direct her to keep it there, making gentle pressure until I get the cord tied, and I always tie it tightly with two separate strings about one and one-half inches from the child, and often place a third two or three inches farther away to prevent placental hemorrhage. I cut the cord about one-half inch from the two strings first applied. I have never had any trouble with bleeding from the cord. Now, placing one hand on the fundus (releasing the nurse assigned to this position), and employing a gentle rubbing motion with slight pressure, and gentle, *very gentle*, traction on the cord with the other, I am enabled to readily deliver the placenta with very little discomfort to the mother. I now remove all debris and soiled blankets, folded sheet, or whatever was placed under the patient, and with a warm moist cloth wipe off all blood stains from the thighs and genitals, looking carefully for lacerations; apply a napkin; *pin on a binder;* stay until the baby is invested in its first garments and placed to the breast; usually leave four or five two grain-doses of quinine, and then take my departure. Such, gentlemen, is my conduct of normal cases of labor. In abnormal and instrumental cases the routine must be varied to meet the exigencies of each particular case.

# LECTURES.

## THE THERAPEUTICS OF INFANTILE DIARRHEA, AND THE IMPORTANCE OF THE BACTERIUM COLI.

By JULES SIMON, M. D., Paris, France.
PHYSICIAN TO HÔPITAL DES ENFANTS MALADES.

[Published in The Physician and Surgeon exclusively]

Gentlemen: There is no subject that is so important at present as this one for those interested in the diseases of children, especially after the epidemic o cholera we have just passed through. I was struck, like every one else, by th almost unsurmountable difficulties which confronted the therapeutists durin this diarrhea trouble. Salol, calomel, lactic acid, benzo-naphthol and a numbe of other drugs were tried in turn. Each remedy secured recognition for a tim and a certain number of experimenters believed for a time that one or anothe of these drugs fulfilled all the indications to the exclusion of all other agents. This impression was not a permanent one, however. The opiates whose excellent effects have been universally recognized have been subjected lately to active criticism. It has been said of them that they imprison the microbes, depress vital force, and lessen the resistance of the organism in its fight against these virulent agents. It seems to me that, without forgetting the importance of the new pathological elements that have been made known in late years by the advances in bacteriology, we should not abandon our old ideas that are based on experience. In place of pinning our faith on any one agent we should treat diarrhea by a series of methods which should be varied according to the case.

First of all, the diet or regimen must be regulated. Be sure of the quality of the wet nurse; or, if the child is old enough, let its food be well looked after. Next, as to medication, use some antiseptic intestinal drugs, and add some of the agents that modify the mucous membranes. The first lot would be salol, calomel, lactic acid, et cetera, and the second, bismuth, chalk, limewater, perchlorate of iron, et cetera. These will calm the flux, and produce the effect of a poultice, at least. Laudanum has the sanction and experience of many years, and a host of doctors who advise it. We know its power and its danger, but we also know that properly handled it will stop intestinal secretion and act as a tonic to the heart. It only dulls the brain and becomes dangerous when given for too long a time and in too large doses. I have seen children put under all sorts of the most rational forms of medication, according to theory, which did not the slightest good until I added a few drops of laudanum, when all changed as if by magic.

In this short enumeration of means of cure, I must not forget the general tonics such as coffee and tea, cognac, strychnine, et cetera, and those means that look to the nervous symptoms, such as electricity, vesication, alcoholic friction, hypodermic injections, et cetera, in the period of algidity. In these general considerations you must not forget also the cases you have seen cured in our Saturday consultation, by bichloride solutions and sulphate of quinine. The first drug was given to the little syphilitics who were taken with diarrhea, and it was only an increase of their regular medication that stopped the flux. The others were cases in which we thought the diarrhea was of malarial origin, and I have often shown you that quinine was the only remedy to stop this form of diarrhea. From the simple rice-water drink to vesication there is nothing absolute in the treatment of infantile diarrhea. It must always be a complex medication according to the case.

Now, as to the microbean science. It certainly shows us a very important factor in these cases, which may be at times primordial, and that you will have to combat with the same care as you do the other elements, but do not think that it is the only and exclusive agent in any malady. Formerly we used to precede our lectures on diarrhea by a complete exposition of the principal functions of the digestive organs, whose perturbations then took on dyspeptic trouble and led to diarrhea. But to-day this view is not sufficient and we cannot now ignore the discoveries of bacteriology. Most of the results of this study as to other maladies, such as diphtheria, typhoid fever and cholera, show that the bacilli come from outside, but in the case of intestinal disturbance it is the bacterium coli, that is a habitual inhabitant of the intestines which is neutral in the normal state, that becomes pathogenetic, secondarily.

To present to you the natural history of this bacterium coli communi, I take some interesting facts from the late thesis of M. Macaigne, and I shall try to show exactly what is the importance of this bacillus in etiology, symptomatology, and what we can learn as to prophylaxis and treatment from its actions.

This microörganism is a little straight baton armed with a few flagelli. It remains quietly in place, living in its normal state, in the digestive tube, much more abundant in the large intestine, and particularly in force near its lower end, thus getting its name of coli. This localization explains the good effects of large enemata of antiseptic solutions, or even of hot water. From the intestinal cavities this bacillus can go into the biliary vessels and cause the lesions we see in some diarrheas, such as jaundice, et cetera. This microbe seems to come into the human intestine shortly after, as a baby, we take our first food, and it remains there for life, forming part of all stools in the healthy or ill person. We see here the great importance of sterilizing all fecal matters as they can become the agent of propagation of maladies, either by simple putrefaction or by the fact of being already so coming from a person who may have an inflammation of the intestines or other disease.

The bacterium coli has only a feeble action on casein and peptones; so we have here the reason why some diarrheas are favorably influenced by rectal injections of meat juices, or by giving them by the stomach. On the contrary this bacillus increases with great rapidity in ammoniacal liquids; from this we deduce the importance of intestinal antisepsis. Its action on lactose and glucose is shown by decomposition, with loss of carbonic acid gas and hydrogen, and formation of formic, lactic and acetic acids. This is the cause of tympanism, and explains the acid stools with erythema around the anus. It is also probable that this morbid acidity predisposes at least to eczema and other skin troubles, and it is a new proof of the usefulness of alkaline treatment in certain cases. Lime water is a very successful agent in such patients. In the presence of milk the bacterium coli is one of the agents of coagulation by the lactic acid that it produces. In fact the best conditions for the development of this microörganism are when the materials of digestion are ammoniacal, or when there is sugar, lactose and peptones that have not been absorbed.

The most interesting point about this microbe is that it is the normal parasite of our intestines, and not only is it not harmful but it is probable that it is useful in aiding digestion, and only becomes virulent or pathogenetic when the intestine is diseased and when there is diarrhea. These facts have been proved by experiments in inoculating animals with it when it produced its characteristic lesions. It then gets its virulence in us? Yes, this appears proved, but it is not yet known what is the nature of the modification in the intestines that allows it to become dangerous, and, in fact, of changing its nature.

It is for us, clinicians, to find out what are the causes of the diarrhea in question, and why this innocent bacterium gets virulent. The slightest intestinal trouble in an infant should be investigated, as it may be the cause of this transformation. In fifty cases of diarrhea Macaigne found the bacterium coli in some thirty children, leaving fourteen not virulent. This will permit of a classification of such cases into simple diarrhea and infectious diarrhea and the extreme term would be infantile cholera. We know that it is in summer time that children's diarrhea is most frequent, and it is probable that then the bacterium coli is most active. This is another reason for being most careful of such patients in summer.

We know also that this virulence is apt to continue for a long time. It is for that reason that you see me order the treatment to go on for a week or ten days *after* the diarrhea has ceased. The same thing happens in gonorrhea and bronchial catarrhs if the treatment is ceased too soon—the virulent agent continues its action. Outside of the intestine the bacterium coli lives for a long time. The typhoid bacillus lasts only a few weeks but the bacterium coli seems to go on indefinitely in fecal matter. It is, therefore, quite easy to understand the propagation of diarrhea, and the necessity of thorough disinfection of all the linen, feces, et cetera, in all cases of diarrhea. Since the complete disinfection of houses where a case occurs, we no longer see such maladies run through a whole family. Even in the late cholera outbreak this was proven. After death the bacterium coli invades all the rest of the organism, but this is rare in life. It has, however, been seen in some cultures of the large organs.

You see, then, that bacteriology has brought us some important elements that explain:

(1) The contagion of enteritis, produced by the bacterium coli, which has been absorbed, and gets its virulence during the intestinal malady.

(2) It also explains why we get such serious states after a simple diarrhea, by the multiplication of this bacillus, which, although inoffensive as a rule, becomes dangerous by some change in the intestines.

(3) It explains that the fever and algidity, even without intestinal lesion, are caused by poisons that are excreted by this microbe.

(4) The complications, such as jaundice, oxaluria, appendicitis, even bronchopneumonia, and meningitis can be caused by the penetration of the bacterium coli into the various organs.

This is the action of the bacterium coli. You now understand that it is only guilty from the moment some change comes about in the intestines by an alteration of its secretions, when it becomes dangerous.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, MARCH 26, 1894.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### DISCUSSION OF PAPERS.

DOCTOR L. S. HARVEY read a paper on "Tyrotoxicon."

DOCTOR JENNINGS: I have been exceedingly interested in the paper just read, but hardly feel able to discuss it properly as I have never met with a true case of tyrotoxicosis. I have met with some cases of diarrhea caused by milk fermentation. There was one set of cases distributed among four or five families, three of which I attended. The milk inspector found tyrotoxicon in the milk which was furnished to these families. Cases of true tyrotoxicon or cheese poisoning are rare on account of the unusaul condition necessary. In regard to prophylaxis, as tyrotoxicon is an unstable compound decomposing at a comparatively low temperature, the boiling of the milk is an effectual preventive. Cases of tyrotoxicon developing in milk are rare, as peculiar circumstances are necessary; the poison is generally found in compounds of milk, as ice-cream. Two or three weeks ago I had a case of poisoning from eating of a custard, which we may regard as strange on account of the heat which is necessary to cook the custard, and which we would naturally suppose would destroy the ferment. As to the relation of tyrotoxicon to the summer diarrheas of children, cholera infantum closely resembles tyrotoxicon poisoning, but it is more probable that other fermentation products are to be considered as causative.

Doctor Anderson: I have nothing special to add, but have been very much interested in the paper. Some little time ago I reported to this society a case of poisoning by a patented milk preparation, where the child, and also the father, were affected. In the case of the father three drachms produced poisonous symptoms. In order to test the matter I fed two guinea-pigs, one with the suspected article and the other with a sample of the same preparation left me by an agent. The pig fed with the second article manifested marked, though not fatal symptoms; twenty minutes after eating the prepared milk the animal had a watery evacuation of the bowels, and had a second movement a little later; this was followed by marked depression lasting from twelve to sixteen hours. The control animal manifested no symptoms of poisoning whatever. I did not understand that tyrotoxicon was so easily destroyed; the germ is easily destroyed but the product, I have understood, was too stable a composition to be changed by 180° Fahrenheit.

Doctor Sherrill: The facts which have just been stated are in line with very important features of the germ theory, as great harm results from their products. A striking illustration of this, and a beneficial effect, is to be found by referring to the work of Professor Law, of Cornell. In New York there is a state law providing for the investigation and destruction of cattle afflicted with tuberculosis; the law very justly provides for a just recompense to owners who have lost animals for the sake of the public good. Tuberculin, the ptomaine of the bacillus tuberculosis, is the means employed in the examination of suspected cattle. After the fluid is injected in the neck a rise of temperature occurs in eight to twelve hours in affected animals. After ruling out other causes which might occasion a rise of temperature, as thirst, or when the cow is calving, those animals which show fever are killed, and post-mortem examinations thus far made have shown the accuracy of the test.

Doctor Parker: I remember being up all one night in attendance between two families poisoned by tyrotoxicon; one of these cases was followed by marked prostration, lasting for three weeks. As to tyrotoxicon causing cholera infantum, it is still a question, but it is a good plan to treat it as if it were due to this poison, by the use of intestinal antiseptics and the avoidance of milk until complete recovery.

Doctor Deuel: Some years ago I attended a family where the members were suffering from a poison which I suspected to be tyrotoxicon. On inquiry

I found that the symptoms were proportionate in each case to the amount of milk taken. The symptoms in these cases were diarrhea, nausea and marked prostration.

**Doctor Harvey:** In closing the discussion I have nothing to add except that tyrotoxicon might form in ice-cream, and also in custard, even after cooking. Instances of poisoning are on record where ice-cream, after standing in an old shed with unhygienic surroundings, has proven almost toxic.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, APRIL 30, 1894.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### REPORTS OF CASES.

**Doctor Knill:** I wish to report a case of a patient, woman, age thirty-four years, mother of two children. Three years after the birth of her first child she complained of pains in the stomach. The pain came on before each monthly period and subsequently increased in frequency, patient sometimes suffering two or three paroxysms a day. Three weeks ago she had an attack followed by jaundice. I advised operation which was finally consented to. The opening into the peritoneum had to be made through three inches of fat. In the gall-bladder there were found about fifty gall-stones. There was made an anastomosis between the gall-bladder and the duodenum by means of a Murphy button which I consider the best method to use in these cases. The operation was complicated by the presence of many adhesions.

### DISCUSSION ON DIPHTHERIA.

**Doctor Jennings:** In beginning a discussion upon the diagnosis of diphtheria we should state distinctly what we mean by the term diphtheria. Modern pathology defines it as a pseudo-membranous inflammation having as a cause the Klebs–Loeffler bacillus. Our clinicians have long recognized that there were different pseudo-membranes. There are at present recognized four different varieties of pseudo-membrane. First, those of the Klebs–Loeffler bacillus; second, the pseudo-membranous inflammations in acute and mildly contagious tonsilitis; third, those of the follicular tonsilitis often merging into the previous form; fourth, pseudo-membranes of specific fever, as scarlet fever, measles, small-pox. Usually diphtheria presents itself in three localities, the nose, pharynx, and larynx. Pseudo-membranes of the nose almost always belong to true diphtheria, and present many difficulties of diagnosis so that we may have to wait two or three days before being positive. The examination in children is difficult. There is usually present general prostration and swelling of the lymph glands; then a thin acrid discharge from the nose attended with peculiar odor. A little membrane may present itself below the soft palate. In the diagnosis of diphtheria of the pharynx there is difficulty at the outset because the four varieties of pseudo-membranous inflammation are there met with. Scarlet fever and diphtheria may often be confounded for a few hours. Eruption of course is usually characteristic of scarlet fever, but we may have eruption of the skin in diphtheria; these, however, are usually profuse and transient. Vomiting is almost always present in scarlet fever, the pulse is

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**Doctor Sherrill**: T [illegible] thirty-four of these cases there was
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aking an outlet for the pus. It was eight years ago
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e frequently. I make use of disinfecting gargles in adults
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sometimes increased by the crowding of the membrane. In 1880 I
atheter to clear the larynx.

OCTOR INGLIS: On account of the lateness of the hour, I would like to read y paper by title (see page 392). I would also take issue with DOCTOR JENNINGS since I do not think that we can take the work of the laboratory and make use of it clinically with accuracy in every case. I would oppose DOCTOR DOUGLAS in regard to incision of the tonsils. I have been satisfied that we should not make any new source of infection.

DOCTOR DOUGLAS: I spoke only of cutting into diseased tissue already swollen. I would not abrade or irritate an already healthy surface.

DOCTOR INGLIS: Would you operate upon another part of the body while the patient had diphtheria.

DOCTOR DOUGLAS: No; I would not.

DOCTOR INGLIS: Well, doctor, you are inconsistent, because I do not see how you can always differentiate between healthy and diseased tissue in the tonsil.

DOCTOR HICKEY: Of five cases which were sent to Harper Hospital with a diagnosis of diphtheria by different practitioners, a bacteriological examination showed that only one had the disease, and the subsequent clinical history of the case proved the accuracy of the bacteriological diagnosis.

DOCTOR ANDERSON: The statistics given by PARKE, of New York, are very interesting, on account of the high death-rate in cases where the **Klebs–Loeffler** bacillus is found, and the death-rate of one-half of one per cent. in the cases where it is not found.

**Doctor Parker**: I would like to say a word on behalf of an old friend, chlorate of potash. In my opinion it keeps the mucous membranes healthy, and so is prophylactic.

P. M. Hickey, M. D., Secretary.

# CORRESPONDENCE.

## LEIPSIC LETTER.

By COLLINS H. JOHNSTON, A. M., M. D., Grand Rapids, Michigan.

NINTH PAPER.

### THE PATHOLOGY AND TREATMENT OF DIPHTHERIA.

Friday, June 1, we arrived in Leipsic. That evening my daughter, aged eight years, had a sore throat and some fever. The next morning her tonsils were covered with a thin but distinct membrane, her breath was offensive, the submaxillary and cervical glands of the left side were a little tender to pressure and swollen, and her temperature was 105° Fahrenheit. Diphtheria was diagnosed, and on the advice of **Professor Sänger**, I took her immediately to the Children's Hospital. This is one of the finest hospitals of the kind in Germany. It has one hundred and twenty beds, and was built three years ago after plans drawn by **Heubner**, who was professor of pediatrics in the University, and director of the Children's Hospital, in Leipsic, for a good many years. As stated in a former letter, **Heubner** had gone to Berlin to accept the chair vacated by the venerable **Henoch** who had resigned on account of old age and retired from practice. His position at Leipsic had not yet been filled, and the hospital was in charge of the first assistant, **Carstens**. But I was assured that the treatment of diphtheria was in every respect the same as when **Heubner** was there; and as he is the most prominent pediatrician in Germany, and one of the leading authorities in Europe on diphtheria, I believe a short account of his treatment of this disease will be of interest to the readers of The Physician and Surgeon.

### THE LOEFFLER BACILLUS.

The pathology of diphtheria is now pretty well settled. The sole exciting cause is **Loeffler**'s bacillus. **Heubner** was the first to show that this bacillus is present in *every* case of diphtheria, and that the so-called diphtheritic pharyngitis which sometimes complicates scarlet fever is not a true diphtheritic affection. He calls it *diphtheroid*. Streptococci and staphylococci are always found with it, but never **Loeffler**'s bacilli. It seldom invades the larynx and is never followed by paralysis as is true diphtheria. The prognosis of a case of scarlet fever, however, is made more grave by the presence of this complication, for it causes pain, impedes deglutition, increases the danger of glandular suppuration, and to the specific fever of the disease is added the fever of septicemia due to the presence of the above cocci and their toxines.

The incubative stage of diphtheria is not accurately known. The bacillus cannot penetrate healthy epithelium, nor is its toxine absorbed by an intact mucous membrane. A catarrhal or other lesion of the mucosa must be present to admit of the development of the microörganisms. The germicidal power of saliva is such as to prevent their growth when implanted upon a healthy mucous membrane. Hence the length of time from the exposure of a child to the onset of the first symptoms of the disease is by no means an indication of the period of incubation. Pure cultures of **Loeffler's** bacilli, however, injected *into* the mucous membranes of susceptible animals produce a typical diphtheritic inflammation in from two to eight days, depending upon the species of animal employed.

The first effect of the invasion of the mucous membrane by the specific organism is a fibrinous exudate between the superficial epithelial cells. The process gradually extends until the whole of the mucosa is involved, and a necrotic process is added to the exudative or croupous. **Heubner** insists that the necrosis in the deeper parts of the membrane is caused by streptococci and staphylococci, and we know that these organisms are usually present in severe cases, along with **Loeffler's** bacilli, which are found in large numbers in the deeper as well as the more superficial parts of the pseudo-membrane. The toxines, upon which the symptoms of the disease depend, are absorbed from the *deepest* portions of the diphtheritic membrane, as the blood-vessels and lymphatics in the superficial parts are destroyed. This fact, along with the knowledge that the bacilli are often present in the internal organs, having recently been found in the brain, lungs, liver spleen, kidneys, and bronchial glands in ten out of fifteen autopsies where bacteriological examinations of the internal organs were made, serves to explain **Heubner's** lack of confidence in the local treatment of diphtheria after the first twenty-four or thirty-six hours of the disease.

## THE USUAL TREATMENT HERETOFORE IN VOGUE AT LEIPSIC.

The treatment of a patient is based upon the belief that a cure is brought about by a process of natural immunization, and all efforts are directed toward maintaining the strength of the patient until this condition is accomplished. **Heubner** believes local treatment to be of considerable *subjective* value in all cases, and it is always employed in some form. There is no doubt that weak sprays clear away the debris of pus, dead tissue, et cetera, and add materially to the comfort of a patient. But its curative effect he thinks is usually insignificant compared to general and hygienic treatment. In times past he has employed many different forms of local medication, but his present plan of treatment has yielded the best results. As a 1–1000 solution of bichloride of mercury kills the bacilli in twenty seconds, the plan has been tried of holding such a solution in contact with the membrane several times a day for two to five minutes in order to allow it to penetrate into the deeper portions, a treatment first proposed by **Escherich**. Theoretically this was good, but the mortality in the hospital immediately increased. Other forms of treatment which involved the use by spray or swab of solutions of carbolic acid, lysol, iron, et cetera, which were used every hour or two in spite of the frequent great resistance of the little patients, were followed by so many cases of death due to collapse from heart failure, rapid wasting of strength, or pneumonia from entrance of the fluids used into the lungs, that they were less frequently used. By comparing the results of a large series of cases in which active treatment was used both night and day with those following the same treatment employed during the daytime only, it was seen that much better results were secured when the children were allowed interesting, on account of the high death-rate in cases where the KLEBS–LOEFFLER bacillus is found, and the death-rate of one-half of one per cent. in the case where it is not found.

DOCTOR PARKER: I would like to say a word on behalf of an old frie chlorate of potash. In my opinion it keeps the mucous membranes heal and so is prophylactic.

P. M. HICKEY, M. D., Secretar

# CORRESPONDENCE.

## LEIPSIC LETTER.

BY COLLINS H. JOHNSTON, A. M., M. D., GRAND RAPIDS, MICHIGA

NINTH PAPER.

### THE PATHOLOGY AND TREATMENT OF DIPHTHERIA.

FRIDAY, June 1, we arrived in Leipsic. That evening my da eight years, had a sore throat and some fever. The next mornin were covered with a thin but distinct membrane, her breath was submaxillary and cervical glands of the left side were a little ten and swollen, and her temperature was 105° Fahrenheit. Dipht nosed, and on the advice of PROFESSOR SÄNGER, I took her im Children's Hospital. This is one of the finest hospitals of the k It has one hundred and twenty beds, and was built three yea drawn by HEUBNER, who was professor of pediatrics in the Uni tor of the Children's Hospital, in Leipsic, for a good many ye former letter, HEUBNER had gone to Berlin to accept the venerable HENOCH who had resigned on account of old practice. His position at Leipsic had not yet been filled, a charge of the first assistant, CARSTENS. But I was assu of diphtheria was in every respect the same as when HEU he is the most prominent pediatrician in Germany, a authorities in Europe on diphtheria, I believe a short a of this disease will be of interest to the readers of

### THE LOEFFLER BACILLUS

The pathology of diphtheria is now pretty well cause is LOEFFLER's bacillus. HEUBNER was the firs is present in *every* case of diphtheria, and that pharyngitis which sometimes complicates scarlet fe affection. He calls it *diphtheroid*. Streptococci found with it, but never LOEFFLER's bacilli. It s is never followed by paralysis as is true diphther scarlet fever, however, is made more grave by tl for it causes pain, impedes deglutition, increa puration, and to the specific fever of the dis cemia due to the presence of the above cocci

The incubative stage of diphtheria is n cannot penetrate healthy epithelium, nor i mucous membrane. A catarrhal or other l to admit of the development of the

vident in twenty-four hours that her strength
taking a fair amount of milk, et cetera,
therefore instituted, and the great
From 7 o'clock P. M. to 5 A. M.
HEUBNER believes that
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peared from her
r throat to see if
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mbrane the bacilli
t CARSTENS told me
ld be safe to remove
my little boy to the
e absence of virility of
der the skin of a guinea-
ymptoms of diphtheretic
l reddening of the supra-
glands. It was six weeks
weeks after the beginning of
This is a most important fact,
aminations before discharging

n is quite simple. One requires
lood serum obtained from a sheep,
r's mixture of three parts serum
peptones, one of sugar, and one-half
its end slightly flattened, or twisted
lightly over the tonsils and pharynx
of the culture medium. The bacteria

will develop at the ordinary temperature of a room, but quite slowly, so that it is advisable to keep them at the temperature of the blood in an incubator where sufficient germs will develop in eighteen to twenty-four hours to render a diagnosis possible. If we wish to test their virulence we may inoculate guinea-pigs, which are quite susceptible to the disease. If the culture is very virulent the animal will die in twenty-four to forty-eight hours. If it is less virulent the animal may live four or five days or longer. In the latter case the animal may become paralyzed, first in the posterior then in the anterior extremities. If the culture has about lost its virulence the animal may recover with only a slight local inflammation at the point of inoculation.

### THE NEW ANTITOXINE TREATMENT.

But it is the antitoxine treatment of diphtheria which I mentioned in my last letter that is exciting the interest of the medical profession to-day. **Heubner** experimented some with antitoxine during the winter and was not much pleased with his results as they seemed no better than when the above described treatment was used. The paper he read at Rome in March was distinctly prejudicial to its employment, and following the conservative course of his former chief **Carstens** had not begun the use of antitoxine at Leipsic in June. I have been reliably informed, however, that the preparation with which **Heubner's** early experiments were made was an exceedingly weak one. His recent results have been most gratifying, and there is no doubt but that his next paper will contain a favorable report.

### A REMARKABLE DECREASE IN THE DEATH-RATE.

The latest statistics are those of **Baginski**. The **Kaiser** and **Kaiserin Frederick Augusta** Children's Hospital, of which he is director, was completed in the summer of 1890. From August, 1890, to January, 1894, one thousand and eighty-one cases of diphtheria were treated there with a mortality of thirty-eight and nine-tenths per cent. The lowest death-rate was in the year 1892 when it was thirty-two and five-tenths per cent. From January 1, to March 14, 1894, eighty-six cases were treated of which forty-one and eight-tenths per cent. died. March 15 **Baginski** began the use of antitoxine, and from then to June 20, one hundred and twenty-eight cases were treated with a mortality of only thirteen and two-tenths per cent. The supply of antitoxine then gave out and the death-rate immediately jumped up to forty-one and five-tenths per cent. In every case the diagnosis was confirmed by a bacteriological examination, and the usual treatment for diphtheria was employed along with the antitoxine. Indeed this is the custom in all of the hospitals where antitoxine has been employed. In all of the fatal cases treatment was begun after the first or second day, or some complication was present which rendered a favorable result improbable. The antitoxine is a *specific* for the poison generated by the **Loeffler** bacillus, but has no action upon the toxines of streptococci or staphylococci which are so apt to be present in the advanced stages of a case. Those who have used the drug most think the mortality of diphtheria should be almost *nil* in cases treated on the first or second day.

### TWO PREPARATIONS OF THE SPECIFIC.

There are two preparations of antitoxine to be had in Berlin: the one is **Aronson's**, the other is **Behring's**, and thereby hangs a tale. To understand the bitter feeling that exists at present between these two men and their friends one must know that there are two rival factions in pediatrics in Berlin, the one in the children's department of Charity Hospital, the other in **Baginski**'s hospital. The director of the former for many years was **Henoch**, whose book on the diseases of children has long been the leading authority in Germany. **Baginski** is a very energetic, capable man, who has also written a book which has passed through several editions and which is second only to **Henoch**'s. Four or five years ago the Empress gave $125,000 for the erection of a new children's hospital in Berlin. **Baginski** was made its director, and the hospital was built after plans devised by him. He was also made an extraordinary professor in the University. There is no position in our American colleges corresponding to this. It carries with it no salary and simply confers upon a man the honorary title of "Professor," and is about as high as Jews are allowed to climb in the German universities. There is an intense popular prejudice against Jews in Germany. Notwithstanding this, a few of them have by reason of unusual ability, et cetera, forced their way into professional chairs, and **Baginski** was naturally desirous of succeeding **Henoch**. But besides being a Jew, **Baginski** is decidedly unpopular personally, and he seems not to have been spoken of for the position, which was finally given to **Heubner**. Now, **Aronson** is also a Jew, and was for several years an assistant to **Baginski**. He is an exceedingly capable young man, not yet twenty-five years of age, and when **Behring**'s first articles on serum therapy were published had already done a good deal of bacteriological work. The entire credit for the development of the theory and practice of the blood serum treatment of diphtheria belongs to **Behring**. From time to time he has published accounts of the progress he was making, and when **Aronson** read his method for preparing the antitoxine, a friend of his told me he exclaimed, "Why, I can prepare that stuff myself." With **Baginski**'s assistance he went to work and succeeded so well with his experiments that the house of **Schering & Company** heard of him, took him in their employ, fitted out a complete laboratory, and supplied him with all the money he needed. His work was, of course, for a long time confined to animals, but his results were such as to justify the use of his antitoxine with children, and on March 14, 1894, he began its use in **Baginski**'s hospital. The wonderful results of the treatment I have already mentioned. He is now at the head of a large laboratory and has one hundred horses and a large number of cows, oxen, sheep, goats, dogs, et cetera, in process of immunization.

## FORM IN WHICH ANTITOXINE IS OFFERED FOR USE.

**Aronson** was the first to put his preparation of antitoxine on the market. Its use was confined at first almost exclusively to **Baginski**'s hospital, while **Behring**'s was tested in six of Berlin's largest hospitals. The latter's antitoxine was not for sale until August 1. In fact, it is almost impossible to obtain either preparation now at any price, and I had considerable difficulty in getting a sample of it. It will probably be several months yet before it can be purchased in the United States in any amount. It takes, so **Aronson** says, seven months to immunize a horse to obtain the weakest serum used, and two or three times as long to get the stronger solutions desired. I was told by a gentleman who spent several weeks working in **Baginski**'s hospital that a short time ago in their great haste to get the animals ready for use seventeen horses were killed at about the same time in the two laboratories, by giving too large doses of the cultures used, thus destroying the labors of many months. The result was that for a while none of the hospitals had any antitoxine.

**Behring**'s antitoxine is put up in little bottles and is of three strengths, number one, number two, and number three. Number one holds about ten grammes of the serum and is of a strength of six hundred einheitens, the unit of measurement by which its strength is estimated. Its price is five marks, or about one dollar and twenty-five cents. Number two contains about one thousand einheitens and costs ten marks. Number three contains sixteen hundred einhietens and costs fifteen marks. The chemical composition of the antitoxine is not known, but its strength can be accurately estimated. **Behring** says that a single injection of the contents of number one is sufficient to cure an ordinary case of diphtheria in a child under eight or ten years of age if the treatment is begun early. In some cases this dose is repeated the next day. If not treated until after the second or third day, if the case is very severe, or if the patient is an adult, number two or number three may be used. The drug is *absolutely harmless*, and in some of the hospitals every suspected case receives an injection of number one on admission. If the case turns out to be diphtheria the usual treatment is instituted. If not, the child is immunized for several weeks or months against diphtheria. The immunizing dose of the **Behring** antitoxine is but one cubic centimeter or one-tenth of the curative dose. The immunizing dose of the **Aronson** preparation is stated to be two cubic centimeters. Moreover, **Aronson** claims but four hundred einheitens for ten cubic centimeters of his antitoxine, while **Behring**'s contains six hundred einheitens.

## THE SOURCE OF THE IMMUNIZING AGENT.

**Aronson** is depending upon horses for his chief supply of antitoxine. Horses however, I believe, furnish only the weaker preparations, corresponding to **Behring**'s number one. He is now trying to produce a more concentrated preparation, which can be procured only from animals who are very susceptible to diphtheria, and who, therefore, admit a very high degree of immunization. There are several different methods of immunizing an animal. It can be accomplished by using either the bacteria or their ptomains alone, or both together. **Aronson** uses a two days' old virulent culture of **Loeffler**'s bacillus. A small amount of this is injected into a horse. This is followed by a slight reactionary fever of short duration, and on its subsidence the animal is inoculated with a larger amount of the culture. This plan of work is continued until the horse fails to respond to large doses of the most virulent cultures. The animal is then immune, and its blood is drawn from the jugular vein or carotid artery and its serum tested to determine its strength. The unit of measurement for determining this is the einheiten. A normal antitoxine einheiten is the amount of antitoxine contained in one cubic centimeter of a normal antitoxine solution. A normal antitoxine solution is one of which one-tenth of a cubic centimeter is sufficient to neutralize or destroy one cubic centimeter of a normal solution of the toxine of diphtheria. The latter solution is one of such strength or concentration that four-tenths one cubic centimeter is sufficient to kill a guinea-pig weighing one thousand grammes. So that every einheiten is of sufficient strength to neutralize ten cubic centimeters of a normal solution of the diphtheria toxine obtained from pure cultures.

### MODE OF ADMINISTERING THE REMEDY.

**Baginski** injects the antitoxine between the shoulder blades of a patient; **Behring** uses the thighs. The earlier the drug is used, the more prompt and pronounced are the results, and the more are complications avoided. Inside of twenty-four hours after an injection the child usually feels better; somnolence, if present, disappears; the fever is less; the pulse becomes slower and stronger, and the general appearance of the case is decidedly improved. This general improvement in the appearances of a case is enough to convince a skeptic of the usefulness of antitoxine apart from the greatly lessened death-rate. The membrane usually ceases to develop in twelve to twenty-four hours after the first injection, and may be entirely gone in two or three days. In other cases the fever disappears more slowly and the membrane may apparently last as long as usual, or may even be renewed after the first has dropped off. But the general improvement is none the less marked, and children often sit up in bed and play in a few hours after an injection.

Baltimore, Maryland, August 20, 1894,

# EDITORIAL ARTICLES.

## EMOTIONAL JAUNDICE.

The influence of the emotions upon physical conditions is forcibly exemplified in the well-authenticated histories of emotional jaundice. Many of these have been commented upon in a recent monograph upon the subject by **Professor Potain**, of Paris. The existence of jaundice of emotional origin has been doubted, owing to the fact that in cases in which it occurred it was frequently coincident with conditions which were of themselves capable of causing jaundice. There is, however, enough evidence to substantiate a belief in its emotional origin. In one class of cases the jaundice may immediately ensue upon the shock; in another class it may follow shortly after. **Brouillard** cites the curious case of a man who, shaving himself, hears disastrous news; he drops his razor, and on looking into his mirror, finds he has become jaundiced. **Potain** speaks of a young lady who, descending into a cave is inopportunely bitten by a rat. She is much scared, and on emerging from the cave, finds herself jaundiced. Another woman became jaundiced on seeing her husband executed. The most remarkable story of instantaneous jaundice is that of two duelists; one of whom, as the duel began, became so jaundiced that the weapon of his adversary fell to the ground in sheer astonishment. Sometimes the result is not instantaneous. A hospital interne, affrighted by one of his comrades appearing as a ghost, became jaundiced the next day. Moral emotions are also frequently productive of jaundice. Fear is the most frequent of these causes, but violent anger has been responsible for this condition, and women have sometimes suffered this cruel penalty for a fit of ordinary every-day jealousy.

Instantaneous jaundice explains itself easily by the existence of modifications of pressure between the blood capillaries and the bile capillaries. Normally the biliary pressure is superior to the blood pressure. Any excitation disturbing the normal pressure-relation may therefore cause suppression of the biliary excretion. The modification of arterio-capillary pressure due t6 excitation of nerve ganglia is not, however, the only cause of unequal biliary pressure, and LABORD has shown that under excitement the biliary vessels are themselves contractile. Why every emotional disturbance does not produce this effect is only a question of reflex irritation; nothing in physiology is less predicable than the remote effects of reflex irritation.

The explanation of delayed jaundice of emotional origin must be somewhat different. If these cases be carefully studied there is usually found a period of gastric irritability, anorexia, diarrhea, or constipation preceding the attack. The changes on the biliary ducts are therefore probably secondary to the gastric disturbances and result from mucous clogging. How a normal emotion can produce gastric disturbance is uncertain. That it does so, the history of most epidemics shows, as at these times gastric disturbance is common. Modifications in the antiseptic influence of normal secretions probably furnish the key to an understanding of these conditions.

## EDITORIAL BREVITIES.

### BACTERIA IN BAKED BREAD.

No more forcible illustration of the ubiquity of microbic dangers could be found than in the recent demonstration of several different species of micro-ōrganisms in the center of a loaf of bread. This shows that the organisms or their spores were capable of surviving the heat produced in the process of baking. In fact there seems no good reason why the origin of many septic invasions of the human body may not be traced to this cause. A few years ago milk was not a suspected cause of disease propagation, so there is no reason why bread should not come within the range of preventive sanitation. The inspection of bakeries with a view to securing their cleanliness is a desirable sanitary precaution.

### AN EPIDEMIC OF SUICIDE.

FOR ten days the city of Detroit has given evidence of a daily suicide. The question is becoming serious and calls for some investigation as to the cause of such wholesale self-destruction. When suicide becomes epidemic imitation is usually a prominent factor. The hard times, inducing all kinds of mental distress, may also induce a general belief that *le jeu ne vaut pas la chandelle.* An epidemic among the women of Miletus, who committed suicide because their lovers and husbands were detained by the wars, was promptly put an end to by the edict that the bodies of all those who committed suicide should be carried naked through the streets. In the seventeenth century a similar epidemic broke out among the women of Lyons and was checked in the same way. It is doubtful whether the motive of modesty is strong enough these days to overcome a strong inclination to self-destruction.

### THE ANTITOXINE TREATMENT OF DIPHTHERIA.

THE treatment of diphtheria by ARONSON's antitoxine appears to be giving satisfactory results. The remedy is as yet practically untried in America, but in Germany and England the reports are very promising. The results achieved in the EMPEROR FREDERICK Children's Hospital in Berlin, are very striking, the mortality which had been over forty-one per cent. for fourteen months previous to the adoption of the serum treatment falling suddenly to thirteen and two-tenths per cent. There is also some evidence in support of the notion that a person may be made immune to the infection of diphtheria by inoculations of serum from convalescent patients. The experiments that have been made on the lower animals have so far been very conclusive.

## MEDICAL NEWS.

### CLINICAL TEACHING IN THE SCHOOLS.

The Chicago school board has been discussing the question of cleanliness, and as a result another innovation, the bath tub, will be introduced into the curriculum of certain schools in that city. In several districts many scholars possess erroneous ideas regarding the proper degree of cleanliness, and henceforth those presenting an unhygienic appearance will receive a scrubbing. The boys will be immersed by the janitor, and the girls will take their ducking under the supervision of women who are employed as assistant janitors. The board deemed it essential that a child should know the value of soap and water as well as the double rule of three or the theory of the tides. The plan to supply the schools with bath tubs originated with Mrs. J. M. Flower, who recently retired from a three years' service as member of the board of education, and who is now a candidate for trustee of the state university. This procedure marks another step toward clinical teaching in the schools. Theoretical physiology has been taught children for years, but it has not kept them clean. Under the new régime pupils will be instructed in the practical application of this science by demonstrations in bathing, and proof of the superiority of this method of teaching the phenomena of the human body will be manifest on the surface.

### NATURAL MINERAL WATERS.

Discussion at the Paris Academy of Medicine became somewhat attenuated during the outing season, so much so in fact that at a recent meeting the topic had dwindled to artificial aëration of natural mineral waters. The methods of bottling in vogue at certain springs were condemned, and the government was requested to interpose the following precautionary regulations: (1) The sale of mineral waters which have been decanted, or artificially rendered gaseous, shall be prohibited. (2) Every application to the ministry for authorization must be accompanied by the certificate of a competent official that the water has not thus been already manipulated, and by the written promise of the proprietor not to resort to these processes. (3) Reservoirs must be hermetically closed, and should be emptied at least every twenty-four hours: they are to be so placed that the spring flows direct into the reservoir. (4) Bottles must be thoroughly sterilized before being filled, and all causes of pollution during bottling are to be most carefully avoided.

### MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The twentieth annual meeting of this well known organization will be held, as previously announced, at Hot Springs, Arkansas, November 20, 21, 22, and 23, 1894. The general committee of arrangements held their final meeting on September 1, in the city of Saint Louis, there being present in addition to the committee, President Scott, of Cleveland, vice-president Strauss, of Saint Louis, and secretary Woodburn, of Indianapolis. Dr. T. E. Holland, of Hot Springs, presided. All of the preliminary arrangements for the meeting of the association were completed. Owing to the hearty coöperation of the railroads, the arrangements in this direction will surpass those of any previous meeting. On motion of Doctor I. N. Love, of Saint Louis, a committee of five railroad officials was appointed to secure the desired reduction of rates. This committee consists of Messrs. Townsend, Crane, Snyder, Wishard and Ives. The interest and enthusiasm manifested in all parts of the country concerning the meeting in November, is certainly remarkable. The fact that Hot Springs is to be the place of meeting is probably an inducement for many to attend. From the large number of favorable responses to his preliminary announcement, the secretary feels justified, even thus early, in predicting an attendance double that of any previous meeting of the association. Let every doctor who can possibly leave home for a few days go to Hot Springs in November. Let him take his family and his friends, and not only a profitable meeting, but a royal good time, will reward him for the exertion.

## DOCTOR CORYDON L. FORD'S WILL.

The will of the late Doctor Ford relates that whereas he became legatee of his late wife's estate, and as his relatives have no claim on this estate, he disposes of it for benevolent purposes. One half of this property is devised to the "Trustees of the National Council of the Congregational Churches of the United States," to be used for purpose of ministerial relief. The other half of Eunice J. H. Ford's estate is to be divided into eight apportionments, and given to the American Sunday School Union, the American Tract Society, the American Missionary Society, the American Board of Commissioners for Foreign Missions, the Congregational Church Building Society, the American College and Educational Society, and the Congregational Home Missionary Society. The property Doctor Ford himself owned is thus disposed of: The income of a trust of $4,000 to his brother, Valorus Ford; the income of $2,000 to his brother, J. H. Ford;—these sums to be divided among their children on the death of his brothers; $1,000 each is given to the two children of his deceased brother, Levi J. Ford; $20,000 is bequeathed to the Regents of the University of Michigan to form the "Ford and Messer Memorial Fund," the interest of which is to be used in the purchase of books for the general library; $3,000 is devised to the Students' Christian Association, the corporation owning Newberry Hall; the remainder of his real and personal property is bequeathed to the Michigan Congregational Association, to be made a permanent fund known as the "Ford Fund," the interest of which is to be available for the purposes of the Association. Edward C. Walker and Bryant Walker, of Detroit, are named executors, with nominal bonds, and are directed to erect a suitable monument in the cemetery at Ann Arbor, to the memory of himself, wife, and adopted daughter. The will was dated December 11, 1893. But little is known of Doctor Ford's affairs. He had one fortunate investment through a purchase of real estate in Brooklyn, New York. He sold it in 1887 or 1888 for $35,000—it probably did not cost him more than that many hundred dollars. He always saved money, investing it prudently. Doctor Ford married in 1865, the widow of one Nathaniel Messer, a trader. Mrs. Messer and Doctor Ford were boarding at the same house in Pittsfield, Massachusetts, while the latter was lecturing at the Pittsfield Medical College. Mrs. Ford's money came to her from Messer. Two nephews living at Fitchburg, Massachusetts, were Mrs. Ford's nearest kin. The joint estate of Doctor and Mrs. Ford amounted to about $275,000. The Doctor's part was about $100,000. He gave $40,000 to religious and benevolent institutions prior to his death. The recipients did not know whence it came. Doctor Ford at one time and another had given a good deal of attention to looking up the Ford genealogy. He had a book in manuscript and a duplicate thereof. One of them may have been sent to the University library. He came from a line of mechanics. In the book mentioned his division of the Ford tribe is traced to the widow Ford and two (or three) sons who came on the "Speedwell" following the "Mayflower." In a letter to a friend in the east, written by the doctor a short time before his death, appears this expression: "I am now giving my fortieth annual course of lectures here—1854–1894. This makes my one hundred and ninth course: Castleton, twenty-four (two a year); Pittsfield, eight; Brunswick, seven; Brooklyn, nineteen; Ann Arbor, forty; to ladies, here, eleven." A sketch of Doctor Ford, from the pen of Doctor A. J. C. Skene, of Brooklyn, may be found in another part of this issue.

## THE LATE DOCTOR GEORGE CULVER PALMER.

THE directors of Oak Grove Sanitarium, in an obituary notice of the late medical director, state as follows: "Identified with Oak Grove since its inception, the moving spirit in its growth and development, alive to its interests and deeply imbued with the necessity and importance of its work, his loss is keenly felt by his associates on the Board of Directors. No less heavily does it fall upon those seeking relief from suffering and trouble in the hospital, of which he was the devoted head. Always tender and sympathetic, the embodiment of gentleness and sincerity, he was beloved by patients who found him a warm friend, a kindly adviser, an accomplished physician. His manner was winning, refined and unassuming, his intuitions were quick and ready, his judgments clear, his suggestions helpful and encouraging. He was indulgent and charitable, but firm in his convictions of duty and wholly intolerant of even the semblance of wrong. The needs of patients were his constant care. In his death they have lost a friend, true and warm-hearted, whose best efforts were constantly put forth in their interest. No higher tribute could be paid him than to record their expressions of affection. Doctor Palmer was born December 27, 1839, in Stonington, Connecticut. He received his preliminary education at Suffield, Connecticut, where he prepared for Brown University. Subsequently changing his plans he entered the literary department of the University of Michigan, and there spent three years. He graduated in medicine in the medical department of the University of Michigan in 1864, and immediately afterward received an appointment in the Michigan Asylum for the Insane, at Kalamazoo, then under the superintendency of Doctor E. H. VanDeusen. He served upon the staff of that institution as assistant physician and assistant medical superintendent until March, 1878, when he became medical superintendent. In 1891 he resigned the latter position and was elected medical director of Oak Grove, which, under his wise and beneficent administration has abundantly fulfilled the high destinies which its promoters had in view. To Doctor Palmer is due the merit of originating and developing the colony system of management of the insane, and to his writings and his personal work the successful establishment of State care in Michigan, is in great measure attributable. He was the uncompromising foe of the County system, and for his assistance in the great reforms wrought in the treatment of the mentally diseased, suffering humanity may long cherish his memory. He was self-sacrificing and philanthropic, and beloved by all who knew him well. His life-work was well done."

## MINOR INTELLIGENCE.

CHOLERA is decreasing in Europe.

TEA increased in consumption six million pounds last year.

THE distinguished syphilographer, Professor Rollet, of Lyons, is dead.

CLAUDE BERNARD is to have a statue unveiled in his honor on October 26.

A NEW GAS, which resembles nitrogen, has been discovered by Lord Raleigh.

A POCKET PELVIMETER has been invented by Doctor Herman L. Collyer, of New York City.

A JAPANESE ambulance carrying men who wore the red cross, has been fired upon by the Chinese.

A MEDICAL COLLEGE was recently opened at Tien Tsin, China. It has about twenty Chinese students.

DOCTOR EDWARD SWASEY, of Worcester, Massachusetts, has invented a lid elevator for cataract operations.

THE next meeting of the anatomical congress will convene at Basel, Switzerland, on April 17, 18, and 19, 1895.

CHANGE OF ADDRESS.—Doctor Elizabeth L. Deuel, from 160 Elizabeth street, west, to 72 High street, west, Detroit.

THE queens of Italy, Spain and Portugal, the czarina, and the empress of Austria, indulge in cigarette smoking.

HARPER HOSPITAL, of Detroit, is now equipped with a double-decked ambulance capable of carrying four persons.

SEOUL, Corea, has a woman's hospital in which two thousand seven hundred and sixty-five patients were treated during 1893.

THE third annual meeting of the Ohio State Association of Railway Surgeons will be held in Dayton, on Thursday, October 11.

THE annual meeting of the Tri-State Medical Society—Illinois, Iowa, and Missouri—will convene in Jacksonville, Illinois, early in October.

BAKU, Russia, has a society for the suppression of hand-shaking. Its purpose is to prevent the dissemination of microbes by personal contact.

TORONTO, Canada, is to have a hospital for consumptives. Mr. W. J. Gage, of that city, has contributed $25,000 toward the charitable enterprise.

DOCTOR J. F. BREAKEY, a graduate of the University of Michigan, class of 1894, and a son of Doctor W. F. Breakey, of Ann Arbor, has been appointed assistant physician at the Eastern Michigan Asylum for the Insane at Pontiac.

**The** Southern Surgical and Gynecological Association will convene in Charleston, South Carolina, on November 13, 14 and 15.

**Doctor C. M. Woodward**, of Washington, District of Columbia, has been appointed health officer of that city *vice* Doctor C. M. Hammett, resigned.

**At** the recent meeting of the Council of the Royal College of Surgeons of England, J. Whitaker Hulke, F. R. S., was reëlected president of the college.

**The** Canadian authorities estimate that one hundred thousand pounds of opium are annually smuggled into the United States from British Columbia.

**A sanitary** convention, to be conducted under the auspices of the State Board of Health, will be held at Union City, Thursday and Friday, October 25 and 26.

**Doctor Osler**, of Baltimore, suggested at the recent annual banquet of the British Medical Association, that an early meeting of this organization be held in Montreal.

**The** Tri-State Medical Society will convene in Atlanta on October 9, 10, and 11. The membership of this organization is distributed over Alabama, Georgia, and Tennessee.

**The** Chicago board of education has voted to abandon the slanting system of penmanship heretofore taught in the schools of that city. The vertical system will be adopted.

**Doctor A. W. Finlayson**, of Detroit, died at Colorado Springs, whither he had repaired for his health. The doctor had been a practitioner in Detroit for the last twelve years.

**Doctor Margaret A. Cleaves**, of New York City, has invented a vaginal electrode for hydroelectric applications in cases of pelvic exudates, ovaritis, vaginitis, et cetera.

**An** electric railway ambulance is a novelty introduced into hospital service at Saint Louis. It consists of a street car with electric motor attachments, and will be permitted to make a speed of twelve miles an hour.

**The** Grand River Valley Medical Society elected the following officers on the 13th ultimo: President, Doctor B. B. Godfrey, of Hudsonville; secretary, Doctor J. W. Cooper, of Grandville; treasurer, Doctor A. H. Weston, of Grandville.

**Doctor O'Reilly**, of Saint Louis, recently appealed to the Board of Health of that city to exert its influence to prevent the wholesale mutilation of women by local surgeons, claiming that many unnecessary laparotomies were being performed.

**The** thermogen is a new device for maintaining the temperature of patients during operations. It supplants blankets and hot-water bags, and consists of a quilted cushion with a system of fine wires enclosed in which heat is generated by electricity.

**Congress** has enriched the hospitals of the District of Columbia as follows: Emergency hospital, $12,000; Columbia hospital, $10,000; National Homeopathic hospital, $8,000; and $4,000 to be used in enforcing the provisions of the act to prevent the spread of scarlet fever and diphtheria in the District.

Doctor W. S. Lamb, of Atlanta, Georgia, has sued that city for $10,000 damages, the cause being injury to health induced by fumes from an open sewer. The jury rendered a verdict of four hundred dollars as compensation for the doctor's health.

The epidemic of typhoid fever which recently prevailed at Montclair, New Jersey, has been attributed to contaminated wells. Water from four wells on one street in a thickly populated section of the city was examined and found to contain typhoid bacilli.

Michigan, Massachusetts, and Minnesota are in the front rank of the commonwealths of the world in which sanitary science has made the greatest progress. The editor of *The Journal d' Hygiène*, a French sanitary periodical, publishes this statement.

The widow of the late Professor Billroth has been granted a yearly pension of two thousand florins. As the law allows a pension of six hundred florins only to widows of professors, the bestowing of a larger grant in this case may be regarded as a special favor from the Austrian emperor.

At the recent meeting of the American Association of Obstetricians and Gynecologists, Doctor J. H. Carstens, of Detroit, was elected to the presidency. The profession will congratulate Doctor Carstens and rejoice that so earnest and able a representative of his specialty has been thus honored.

Professor Hermann von Helmholtz, of Berlin, died on September 8, aged seventy-three years. He was born at Potsdam, on August 31, 1821, and received the degree of Doctor of Medicine in 1842. He was the inventor of the ophthalmoscope and author of a "Manual of Physiological Optics."

The British Medical Association recently held a very successful meeting at Bristol. There were two thousand three hundred and twenty-one members present, and the receipts amounted to $10,675. The next meeting will be held in London, under the presidency of Doctor J. Russell Reynolds.

The Pennsylvania and Maryland Medical Union Association which convened near Columbia, Pennsylvania, on August 31, elected the following officers: President, Doctor George H. Rohé; vice-presidents, Doctors J. R. Shellenberger and J. H. James; secretary, Doctor J. K. Lineaweaver; treasurer, Doctor G. W. Gillespie.

Under the title of one hundred years of business life, Messrs. W. H. Schieffelin and Company, of New York, have published an interesting account of the history of the great firm. The book is copiously illustrated with portraits of the various members of the firm from the days of Jacob Schieffelin until the present day.

The transactions of the last meeting of the American Medical Association will appear in one of the three volumes of "Intellectual California," the latter being the title of a report of the congress, conventions, and other "intellectual events in California contemporaneous with the period of the Midwinter Fair." The portraits of about three hundred of the handsome members of the association will adorn the volume containing the transactions.

An invention that will prove a boon to miners has been devised by Doctor J. S. Haldane, of England. The apparatus is about the size of a safety lamp, and consists of a steel case holding compressed oxygen and a respirator. It is designed to prolong life several hours in the after-damp which fills a coal mine subsequent to an explosion of fire-damp.

The Battle Creek Academy of Medicine is one of the flourishing medical societies of Michigan. It has a membership of thirty-one, holds monthly meetings, and elects officers semi-annually, the following being the present incumbents: President, Doctor S. S. French; vice-president, Doctor A. W. Alvord; secretary and treasurer, Doctor W. H. Haughey.

The Baltimore and Ohio Relief Department makes the following statement of benefits paid from May 1, 1880, to May 31, 1894: 958 cases accidental death, $1,009,732.22; 51,099 cases accidental injuries, $657,956.54; 29,355 cases surgical expense, $149,205.97; 73,994 cases natural sickness, $1,085,846.32; 1,833 cases natural death, $816,540.50. Aggregate, 157,239 cases, $3,719,281.55.

Doctor Benjamin P. Brodie, who contracted a mild case of small-pox, has returned to the exercise of his ordinary duties. The doctor has gained an amount of clinical experience during his sojourn in the contagious hospital which will undoubtedly make him an expert diagnostician in future small-pox epidemics. Doctor Brodie receives unbounded congratulations for his happy recovery.

Twenty-three universities in Italy are to be suppressed by the government. It is proposed to convert them into preparatory schools, and create several well-appointed universities in the larger cities. There seems to be a tendency in this age for great universities to develop at metropolitan centres, and Detroit is wise in considering the advisability of embarking in a project on the line of this innovation.

Doctor Daniel Cornelius Danielssen, an authority on leprosy, died recently at Bergen, Norway, aged seventy-nine years. The doctor was born in Christiania, and in 1847 was the conjoint author of a work on leprosy which gained him a universal reputation. His whole life was devoted to the study of this disease, and at the time of his death he was physician-in-chief to the leper hospital in Bergen.

The American Academy of Medicine, in convention recently at Jefferson, New Hampshire, elected the following officers for the ensuing year: President, Doctor J. McFadden Gaston, of Atlanta, Georgia; secretary and treasurer, Doctor Charles McIntyre, of Easton, Pennsylvania; assistant secretary, Doctor Edgar M. Green, of Easton, Pennsylvania. The next meeting will be held at Baltimore, Maryland, in May.

Detroit Pathological Laboratory.—A laboratory has been established at 32 Adams avenue west, for the purpose of assisting the profession in the examination of urine, sputum, blood and pathological tissues. A carbonic acid gas freezer is used, so that no delay occurs in the preparation of specimens for diagnosis. The laboratory is under the able direction and superintendence of Doctors P. M. Hickey and W. I. Senkler.

THE American Association for the Advancement of Science, which recently convened in Brooklyn, elected the following officers for the ensuing year: President, E. W. Morley, of Cleveland, Ohio; secretary, F. W. Putnam, of Cambridge, Massachusetts; general secretary, James Lewis Howe, of Louisville, Kentucky; secretary of the council, Charles R. Barnes, Morrison, Wisconsin. The chairmen of the various sections constitute the vice-presidents of the association.

A PETITION has been presented to the school board by the Christian Scientists of Burlington, Iowa, asking that physiology be abolished from the public schools. Their supplication recounts the intelligence that there is no material body and consequently the alleged functions thereof should not be implanted in the scholar. Objection is made to geography on the same score. The prayer of the petitioners has not been granted, the personal ailments of the board furnishing conclusive evidence of the absurdity of this new doctrine.

THE Detroit Physicians' Protective Association held its annual meeting at the Hotel Cadillac on the evening of September 4. Reports for the year were presented, showing that the affairs of the association were in a healthy condition. The present membership is one hundred and fifty. Officers were elected as follows: President, Doctor L. J. Lennox; vice-president, Doctor R. H. Stevens; secretary, Doctor P. M. Hickey; treasurer, Doctor S. H. Knight; board of directors, Doctors Winter, Tibbals, H. Wilson, Collins, Olin, Shurly, Irwin, Caron and Kerr.

THE American Medical Publishers' Association held its first annual meeting at Hot Springs, Virginia, on August 13 and 14. The president, Doctor Landon B. Edwards, of *The Virginia Medical Monthly*, read an able paper on "Advertising and Advertising Agencies," which was well received by the members, and the meeting proved a most profitable and happy event. Hereafter the annual gathering will be held on the day preceding the convening of the American Medical Association, the next meeting being set for Monday, June 5, 1894, at 9 A. M., in the Eutaw House, Baltimore.

THE PONTIAC MEDICAL SOCIETY.—The annual dinner of this society was held at the Sylvan Lake Hotel on Monday, August 28. The affair which was a very pleasant one, assumed the form of a farewell banquet to Doctor C. B. Burr who, in leaving to assume his new duties at the Oak Grove Sanitarium, thus severs his active connection with the society. Everyone at the table expressed his regret at Doctor Burr's departure, besides indulging in personal encomium, which must have been as gratifying to its recipient as it was felt to be deserved by the speakers. The Pontiac Medical Society will miss Doctor Burr very much.

DETROIT and Brooklyn are warring with their health commissioners. In the former city the guardian of health was deposed for alleged relaxness of duty during the recent small-pox scare. The official denied the charge and instigated legal proceedings for reinstatement. Pending the outcome the board of health have resolved that, in the event of adverse decision, the case be appealed to the supreme court. In the latter city a petition has been circulated praying for the removal of the health commissioner because of the firm stand taken by this official relative to quarantine and vaccination during the small-pox alarm several months since. Verily, people are difficult to please!

Doctor W. A. Campbell, of the University of Michigan, has just returned from a three months' tour of Europe, whither he went for the purpose of gleaning the methods of teaching anatomy in vogue at foreign medical centres. The doctor visited the schools of London, Paris, Zurich, Munich, Vienna, Prague, Leipsic, Berlin, Edinburgh, and Glasgow, enriching his fund of anatomical knowledge by many valuable observations which will be utilized during the ensuing collegiate year. Doctor Campbell enters upon his lecture work this term as assistant professor of anatomy, which title, in this particular case, is practically equivalent to that of full professorship, the duties involving entire charge of instruction in descriptive and surgical anatomy, the recently appointed professor giving his whole attention to general or structural anatomy as considered from a histological stand-point.

# RECENT PUBLICATIONS.

## REVIEWS.

### THE INDEX CATALOGUE.*

The new volume of the great catalogue shows us that the last letters of the alphabet are being reached. The present volume takes us from universidad to uzoroff.

*The Index Catalogue of the Surgeon General's Office of the United States Army.

### TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY.

If there were any doubt as to the success of the last meeting of the Michigan State Medical Society this would be dissipated by perusal of the handsome volume of transactions issued by the committee on publication. The tone and temper of the proceedings indicate the attainment of a higher scientific standard than any previous period of the society's history. The discussions have been reported more accurately and the editor is to be complimented upon the excellent presentation he has made of the society's work.

### MEDICAL MICROSCOPY.*

The growing importance of the laboratory in the field of practical medicine has called forth numerous excellent manuals dealing with pathological examinations and the technique of bacteriological research. The present volume is a guide to the physician or student in the use of the microscope, which will give him much instruction he would be apt to acquire in a more expensive way. With its aid the physician can do his own microscopy. The text covers the range of pathological enquiry and is elucidated by numerous engravings and colored illustrations.

*A Hand-Book of Medical Microscopy for Students and General Practitioners. By James E. Reeves, M. D. With a glossary and numerous illustrations. P. Blakiston, Son & Company, Philadelphia.

## PATIENTS ABROAD.*

An enumeration of the principal European health resorts, and the purpose for which the various water-cures are used, forms a useful adjunct to the physician's library. The guide being by disease, not by places, makes the volume more useful, and the physician desiring to know where alopecia or chlorosis can be treated, finds a choice of various places given him.

* Where to send patients abroad for water cures and climate treatment. By Doctor Thomas Linn. Geo. S. Davis, Detroit.

## TREATISE ON DIPHTHERIA.*

The treatise on diphtheria furnished by Doctor Bourges is a forcible exposition of the accepted etiology and pathology of this grave disorder. That the disease is a local one whose bacteria remain embeded in the local lesion and do not enter the general circulation or invade the organism, seems now substantiated. The constitutional effects which may be as grave as the local infection, are due to the absorption of the very active toxine demonstrated by Roux and Uersin. The description of the two sets of symptoms above, due to the local lesion, and those due to the diphtheritic toxine, is carefully carried out in the excellent monograph of Doctor Bourges.

*Treatise on Diphtheria. By Doctor H. Bourges. Translated by E. P. Hurd, M. D. Physician's Leisure Library Series. Paper, twenty-five cents; cloth, fifty cents. Geo. S. Davis, Detroit.

# MEDICAL PROGRESS.

## BIOGRAPHY.

### A SKETCH OF CORYDON L. FORD, M. D.

Corydon L. Ford, that gifted teacher of anatomy, is no more. He finished his one hundred and ninth course of lectures on April 4, 1894, the same date that his life-work and his life with us ended. Born and reared in some little unknown village in the State of New York, the beginning of his life was as obscure and common-place as that of Abraham Lincoln, whom he resembled in some of his rugged, strongly-marked and picturesque features. The impression at this time is that he obtained his education at the public school, and may have had some aid in a higher grade of study, but he never had a collegiate training. At an early age he taught in a public school, but only for a short time, and then entered upon the study of medicine. With but little preliminary training made great progress by his own gifts, energy, perseverance and heroic effort As soon as he graduated he began to teach anatomy in some subordinate positio and in a little while rose above his associates and took first place.

"The greatest teacher of anatomy," he has often been called, and I belie he was the greatest that this world ever saw. To live, to act, to die as this m did is as full and complete a record as the human heart desires. Men there m have been who knew more about general anatomy; some made more discoveries in this branch of science, but few, if any, equaled him in his knowledge of human anatomy, and none came near to him as a teacher. Ford stood alone, far above all others, in his capacity as professor of anatomy, gifted far beyond compare with that rare power to impart knowledge. He was ever on a higher plane than his contemporaries. He took this position, too, in spite of many disadvantages. As already stated, his early education was far from being as complete and comprehensive as is now deemed necessary to fit a man for the profession of medicine, yet he did preëminently that for which many Americans have been noted, namely, superb scientific professional work without a full preliminary training. He began to teach anatomy early in life, and without a break he continued his work for nearly sixty years. A slight physical defect (the only one in his whole being) made him lame; this disqualified him for the practice of medicine and surgery to any great extent, but happily anchored him to the study of science and teaching. This no doubt had much to do with determining his course of life and in making his career, now closed, so thorough and well rounded out. This weakness of one limb was far more than compensated for by extraordinary health and strength, mental and physical.

His knowledge of anatomy was most extraordinary and was gained at first with a little help from books and teachers, and then all the rest was obtained by his study of nature. He did not go to the library to investigate or refresh his memory, but to the living structures in the woods, fields, highways and byways, and to practical investigations in the laboratory of practical anatomy. He was a pioneer in this method of study, for I believe he preceded Agassiz who founded the great school of practical observation and study of zoölogy from nature. He was also a pioneer in his teaching by object lessons and demonstration. His knowledge of the great principles of his subject was most thorough, and in every detail complete and familiar as the alphabet of his mother tongue; so much so that he was able to accurately express himself without effort or hesitation. He was in this respect like the choir of the forest whose heads and hearts are full, and overflow in melodious song.

His knowledge and love of anatomy and his enthusiasm, which never slumbered, were the basis of his strength. His method of teaching, the Socratic, was by raising questions and answering them. This method he matured to the highest degree. His ability to excite interest in students and keep them interested was wonderful. Anatomy was the "pons asinorum" of medical students until Ford made it as fascinating as poetry or fiction. So plain, simple and interesting were his lectures that a layman who knew nothing of the great science of organization would listen to him by the hour with pleasure and profit. He made every avenue to the mind effective. All that he said reached the ear, and what he did reached the eye at the same time. He made his descriptions and demonstrations go hand in hand in as perfect harmony as a master-artist could play an "Aria" and its accompaniment. He loved anatomy and made others join him in his affection. He never drove students or urged them, but wooed them to admire and study the subject in hand. The quaint intonations of his clear simple sentences, the happy gesture and twinkle or flash of those soft grey-blue eyes, and a smile that lighted up the plain strong face, altogether sent facts home to the dullest brain and made them stay there. Like a strong healthful boy at his favorite play he made his students eager to join him. So thoroughly familiar was he with his subject and so strong, that he was free to think only of how to impart knowledge. With no apparent effort his vast storehouse of facts seemed to well up constantly in his mind and find expression almost automatically. He could at a glance tell those who failed to follow him. He would look at a class of hundreds and pick out those who had not seen, heard and comprehended what he did and said. He would repeat for their special benefit and then go on, carrying all with him agreeably and easily. He not only taught but made sure that everyone of his class learned all he ought to know. He anticipated all the obstaclés and difficulties, and surprised his students by showing them just what had been puzzling them and what they could not grasp in reading the books. Whenever he wished to inculcate any great principles of anatomy that ran through a number of organizations, he had at hand any number of illustrations; birds, reptiles, fishes were all pressed into service to show the design and principle of structures and their physiological adaptation.

Not being engaged in the actual practice of medicine or surgery one would naturally expect that his teaching would have been impractical, that he would deal more with the science of anatomy than with its practical utility, but here he surprised every one who ever listened to him by teaching physiology and surgical anatomy most impressively. A few words regarding what any structure that he had described was "good for," very briefly but fully taught physiology, and in his descriptive anatomy he invariably added to the interest of his demonstrations by showing how convenient it was for the operator to know about the relation of things. "What is it good for?" "What is the use of it?" were questions which he continually raised, and answered them briefly, practically, and in a way never to be forgotten by the physiologist or surgeon. He would often say, "You may have occasion while operating to look for this artery, here it is; what is in front of it? look and see, here it is. What is behind it? on the right of it? on the left of it?" To each question came the answer, "You can see it right there."

Thirty years ago I attended his lectures and demonstrations, and many of the practical and useful things in anatomy then presented remain as clearly in mind to-day as when they were at first impressed. I have heard him lecture daily for months without hesitating a moment for the plainest and most effective of words to express his ideas, and without once using the personal pronoun, I. He was not only, then, the greatest teacher of descriptive anatomy, but of surgical anatomy, and of physiology; and this was done without any apparent effort. It may be truly said that one learned anatomy from Ford without the consciousness of being taught. Anatomical lectures and anatomy as a study have always been considered dry, difficult and uninteresting, and the great majority of students dread them, and are glad to be through with them. No student that I have ever seen, no matter how lethargic, ever had a moment's time to grow wea when he was with Ford. There is much in the practical study of anatomy th is not by any means attractive to the delicate and refined young man, but Ford's hands every organ and tissue was made beautiful and inviting. All w ever saw him in the amphitheater will remember how carefully and cleanly prepared his subject; how every portion, excepting the one under observatio was carefully covered up. Everything that might seem disagreeable was at on eliminated, and everything was made pure, beautiful and inviting by the touch of this great master.

As a man, Professor Ford was clear-headed, kind-hearted, pure-minded. He lived a life of seclusion, knowing nothing of the so-called pleasures of life. It is doubtful if he was ever in a place of amusement during his life, but he was quite entertained in his work with his students, associates and friends in college. Plain, simple and severely correct in all his habits, his wants were easily supplied, and by setting a limit to his desires he was able to gratify them all with little means. While Professor Goodsir was receiving ten or fifteen thousand dollars for teaching anatomy in Europe, Professor Ford in this country was receiving little more than fifteen hundred. Strange it is that in this country the people will give thousands of dollars to a prima donna for singing a song while college professors labor for the wages of a ploughman. It is more wonderful that men like Ford can be found who love science, learning and humanity enough to serve without gold.

He gained the respect of everyone who came in contact with him, and this respect grew to profound admiration. He associated always and intimately with students, and the nearer they came to him the more they felt his strength and goodness. There was no cold atmosphere of assumed dignity put on to conceal weakness. He was pure, manly and strong enough to be always transparent while with his students, so that the more they knew of him the more they found to admire, and the surer they felt that there was no weakness that he had to conceal. The wildest boys in his class became gentle and respectful, quiet and attentive, the moment he looked at them. He was the gentle shepherd that led his flock with tender care. He was unassuming, retiring, gentle—almost timid—and in his manner, in this respect, he seemed to possess the disposition of the refined woman, yet withal he was one of the bravest men that one could meet. In the session of 1861–2, his associate, Professor Gunn, that remarkable surgeon, was serving the country as a military surgeon, and Professor Ford in addition to his lectures on anatomy took up the work of his absent associate, and then we had occasion to see him operate, and this he did with an accuracy and firmness of touch which led one to believe he was wholly unconscious of the term "nervous" as commonly used. One of his students, at the time, who had a fancy for surgery, but was fearful that he would not be able to practice that branch of medicine because of his tender-heartedness, learned from Ford that the tender are the bravest. This student had the impression, which was popular then, and is probably so at the present time, that a surgeon must be hard-hearted and unfeeling in order to be able to do major surgical operations; but an incident in the life of Ford taught him the truth on this subject. A few days after seeing the professor calmly and coolly do a very important operation in the amphitheater, the student had occasion to sit beside him at a public meeting where the speaker told an exceedingly interesting but pathetic story, and at the conclusion of the narrative when he turned to look at the master he found that ideal anatomist and surgeon with tears flowing as freely as they ever did from the eyes of the most affectionate mother or maid.

I have an idea also that he was a man of profound religious feeling. I know not and care not what his creed was, but he impressed me as a man who adored he good, the right, the true, omnipotent and benevolent; that the Being with these attributes was the God that he worshiped and the diety whom he saw through his works and whom he aimed to serve in all things. Solid as a rock which long resists the elements, he remained young far into the afternoon of life. At three-score and ten as active as at forty, with abundant hair, without a silver thread noticeable in it; when nearing four-score there was a little more repose, a little less fire in his lecture, more time in the easy chair after the chief work of the day was done, less time in the museum and laboratory, but no signs of decline such as are usually visible in the aged. The night came to him, as it comes in his own country, after a very brief twilight.

The influence which Professor Ford exerted upon the profession of this age can be thought of but cannot be computed: He was not the physician and surgeon who serves his fellow-men in a way which brings admiration and endless loving memories of his goodness and value. Works of such good men are seen and appreciated, and when they have finished their life-work we can estimate them by comparison with other great men in the profession who have come and gone; but I contend that the influence for good exercised by Professor Ford in his long career was as great, or greater than any in the profession, although unseen by the vast majority of mankind. He taught anatomy when there was so little time for it that there would have been but few anatomists sufficiently qualified in this branch of medicine to be either good physicians or surgeons. He taught more and in less time than any other man could do. How many physicians and surgeons are there in this and other countries who owe their success to the grand work done for them by Ford? He certainly laid the foundation upon which it was possible to build an education which could secure success. He robbed anatomy of all that was unattractive or repugnant in the study, and made it a living, pure, attractive and useful knowledge. The thousands of men who have attained to eminence in the profession, I know, owe a great part of that success which has made them renowned, to the unseen, unknown, and perhaps forgotten influence of Ford. Nor was his influence for good limited to his teaching of anatomy. He made science so interesting in its most obscure, difficult and uninviting department that students were encouraged to take up the other branches of medicine with an enthusiasm that they never would have known had it not been for the influence of this remarkable man. Perhaps no man that ever lived did more towards raising the standard of the profession in this country, so far as surgery is concerned at any rate, to the high plane which it now occupies, than this same teacher of anatomy.

Another way in which he rendered the profession a service which should keep his memory ever present and ever young was, that he made teachers of other men. Many of those who are teaching the various branches of medicine to-day owe much of their success to the fact that he, unconsciously, perhaps, on his part or the part of his students, taught them how to teach others. On one occasion he complimented a young teacher (who had been his pupil) upon h success. The youthful doctor thanked his old master and added, "It com naturally; I have the teaching diathesis, caught from Professor Ford when I w a boy." He did much to make good, honest, faithful men; he excited intere and induced students to study, and to study thoroughly and faithfully, an imparted to others the power to teach, to a degree that few if any have equale and altogether his influence on the profession in America is perhaps great and more lasting than that of any who went before him to the "pale realms."

In looking back to early days, the pleasantest and most profitable in one's student's life began while with Ford, and the impressions then made stand out as a guiding star and beacon light, shining even now and telling that his influence still lives and will live after him.—A. J. C. Skene, M. D., in *The Brooklyn Medical Journal.*

## GYNECOLOGY.

### RÉSUMÉ OF AN ARTICLE ON "THE INCISION IN ABDOMINAL SURGERY."

By J. H. CARSTENS, M. D., Detroit, Michigan.

(1) With a small, narrow-bladed, sharp knife, make a clean incision through the skin of the necessary length, and with another sweep (or two) cut through the linea alba, muscle, et cetera. Lift the peritoneum with your fingers, open it, and inlarge the incision. The use of forceps to lift the tissues, or the grooved director, is unnecessary.

(2) In closing the abdominal incision use animal ligature, kangaroo tendon or catgut. First carefully bring together the peritoneum in a running stitch, then the transversalis fascia, and the rectus if the incision is through this muscle. · Then most carefully bring together—edge to edge—the tendonous insertion of the oblique muscles. The loose cellular tissue above, and fat, can be brought together in one or two tiers, according to thickness. Bring the skin together, carefully, with Marcy's cobbler stitch, thus burying all your suture.

(3) Then seal with collodion, and if everything connected with the operation has been perfectly aseptic, absolute primary union will take place, and the different layers of the abdominal wall will have been brought together as near as possible as they were in the first place and no hernia will result.

(4) In cases of extensive umbilical, ventral, or other hernias, it is best to bring the peritoneum together with an over-and-over stitch of kangaroo tendon or catgut; to make a flap-splitting operation of the ring, which is brought together with silkworm-gut, or silver wire which are buried and then the fat and skin are united with the buried animal suture.

## MEDICAL MELANGE.

### THE TREATMENT OF FRACTURE BY MASSAGE.

Sevenin, of Moscow, reports twenty-four cases of fractures treated by massage, and claims a great future for this treatment. To hasten union he gives three times daily a powder consisting of two grains of phosphate of iron and five grains of phosphate of lime. He demonstrates the beneficial action of this powder in relating his last four cases which took an unusual short time in healing. One of these cases, a fracture of the surgical neck of the humerus in a washerwoman of fifty-two years of age, showed no more crepitation on the eighth day, the abnormal mobility had ceased, and on the sixteenth day the patient could raise her arm in a horizontal position.—*The Pacific Medical Journal.*

## ANOMALIES OF THE GENITAL ORGANS IN FEMALE IDIOTS AND IMBECILES.

M. Voisin, in examining one hundred and fifty idiotic or imbecile girls at the Salpêtrière, found genital anomalies in three-fourths of the whole number. The labia minora were frequently very large, and often showed supplementary folds and exaggerated pigmentation. The prepuce of the clitoris was generally much developed, with numerous folds. Most of these deformities were results of masturbation, which, in about one-forth of those examined, had produced also defloration; the rupture of the hymen was usually unilateral and the labium minor on that side corresponding to the hand used was hypertrophied and more plicated and pigmented than its fellow of the opposite side.

## FASHIONABLE QUACKERY.

Sir James Crichton Browne, in his address before the Sheffield Medical School, in alluding to medical ethics expressed the opinion that the present widespread patronage of quackery is a real humiliation to the medical profession. "It is patronized in high places, but the very hotbeds of it are our fashionable watering places and health resorts." Sir James declares "our learned clerics are most addicted to it—the skilled artisans the least"—and he thinks these clerics should "seriously reflect that in giving countenance to nostrums they exhibit a credulity and superstition that must seriously impair their usefulness in their sacred calling with all thoughtful men."—*The British Journal of Dental Science.*

## EPILEPTIC SEIZURES SUSPENDED.

Larrabee (*Southern Medical Record*) calls attention to the frequent suspension of seizures for considerable periods under certain mental influences. He mentions the case of a famous church-spire painter, who worked in Louisville, who was an epileptic, and yet could be seen any day suspended upon his airy platform one hundred and fifty feet above the ground. He never had a spell while aloft pursuing his work, but once back upon *terrâ firma* he would be seized with a fit. So marked is this feature that treatment by a new physician, especially if he be a celebrity, often secures a long immunity from the seizures. The knowledge of this fact should caution us against the belief in the full effectiveness of our therapeutic measures.

## COLD WATER TO SCALP.

The present fashion in young boys and even men in cutting the hair close to the scalp, both in summer and winter, is a cause of disease of the ear. It is a well-recognized fact that we hear with the skin of the scalp and the bones of the head, and irritation by dampening the skin impairs the hearing, and when cold water is applied too freely it will produce coryza and earache. Again, young girls saturate their hair in bathing and then allow the air to dry it. Bathing caps should be always used under such circumstances. The hair is a great protection from cold, and during the winter should be used to protect the scalp and throat. The new form of clipper by which the hair is cropped very close is cause of earache, likely to follow inflammation of the middle ear, especially i the person is afterward placed in a car or carriage or cab, and the wind allowe full play on the part.—*The Medical and Surgical Reporter.*

# PRACTICE.

## CLINICAL NOTES.

J. H. Brierley, M. D., A. B., of Cumberland, Iowa, says papine is a perfect anodyne. One old lady said she had not had one fair night's rest, because of chronic rheumatism, for three months. Papine, one teaspoonful, gave a good night's rest, with no nausea, nor dull feeling next day. I have given papine to patients who know they could not take morphia, and they never had a symptom to make them think any preparation of opium had been taken. Wherever morphia is indicated, papine is much more so. I gave papine to a patient with periostitis with deep abscess, and gave the papine daily for two weeks without, so far as I could see, impairing appetite or deranging stomach or bowels in the least.

I desire to report for the benefit of my fellow practitioners the following facts in relation to the two hundred and fifty cases of pulmonary tuberculosis that came under my supervision while resident physician at the Philadelphia Hospital (Blockleys): Of this number, one hundred and sixty-eight refused to take cod-liver oil for the usual reasons. Seventy-three cases were placed on terraline. Fifty-two of these cases had incipient phthisis, all of which gained rapidly in flesh, cough gradually disappeared, and there was the most marked improvement in every way. Twelve of these cases were farther progressed in the disease; and of these, nine became so much better that they regained their former weight, and are now but slightly troubled with cough. The rest were too far advanced to be benefitted by medication. I send you this report, unsolicited, simply in the interest of the profession.—Herman D. Marcus, M. D.

Liquor Sedans.—This I find to be a utero-ovarian sedative and anodyne of exceptional value, as in my hands it has produced the most brilliant and flattering results, far exceeding my most sanguine expectations. Mrs. W., aged forty-four years, and approaching the menopause; very anemic, thin, and of nervous temperament; much anorexia at times; habitually constipated; complains often of headache and palpitation, with frequent but scanty micturition; menstruation very irregular, returning every three to five weeks, and lasting from two to four days; flow small in amount and nearly colorless; attended with violent pains in the lumbar region, groins, with general tenderness over the hypogastric region; no organic lesion of the heart, simply functional as a result of other lesions. Upon examination, I detected retroversion of the uterus of the second degree, and a profuse leucorrhea. Had previously almost exhausted the materia medica in seeking a remedy for her relief; had given Hayden's viburnum compound, aletris cordial, fluid extract viburnum prunifolium, cannabis indica, et cetera. As a *dernier ressort*, I ordered liquor sedans, one drachm four times a day, to be continued during menstrual period; Fowler's solution with bromides; and an injection for the leucorrhea; also placed a Thomas' retroversion pessary. Saw her four days later; met me with a smile and remarked the "new medicine" was going to "cure" her. Her improvement has been steady and rapid; appetite good; menstrual epoch unattended with pain; discharge higher colored and more profuse, lasting from five to six days, and more regular than before for years. Leucorrheal discharge disappeared; does not suffer with palpitation or headaches. Such is my happy success with that grand therapeutic agent, liquor sedans.—C. K. Gardner, M. D.

**Kola**—Considerable interest is being evinced by physicians regarding the tonic stimulant action of kola, and it is coming to be largely used in cases of nervous exhaustion, as it combines the invigorating properties of caffeine, with the stimulating effects of theobromine and kolanine, which latter peculiar principle is claimed by some investigators to be superior to cocaine as a stimulant, without the enslaving properties of the latter alkaloid. Kola in the form of a fluid extract is acrid and bitter in taste, which renders it unpleasant to administer, and manufacturing pharmacists have devised many compounds and elixirs as well as combinations with other drugs, without being able to present a palatable preparation. After long study, and experimental investigation, Frederick Stearns & Company, of Detroit, Michigan, by an original process have at last produced such a preparation—Stearns' kola cordial—that is freed from acrid bitterness. It is one-fourth the strength of the fluid extract, and is in the form of a delicious cordial, being the only palatable preparation of the drug pure and simple that has been devised. Messrs. F. Stearns & Company were the introducers of kola to the medical and pharmaceutical professions of this country, and refer inquirers to *The New Idea* of June, 1882, and June, 1883, where the drug was first mentioned. They have now in press an exhaustive treatise on kola, its history and therapeutic range, which will soon be ready for distribution to physicians who are interested in the subject, and they invite correspondence regarding the drug itself, and Stearn's kola cordial, samples of which, with full descriptive literature, will be mailed on request. Write them.—*New York Medical Journal.*

**Aristol in Operations for Appendicitis.**—There has been a tendency of late to avoid the use of chemical antiseptics in the peritoneal cavity in laparotomy cases. Some operators discountenance even irrigation with sterilized water and confine themselves to dry sponging. In cases where extensive adhesions are, however, present, there is great danger that the separated peritoneal surfaces may reunite and secondary adhesions again be formed, necessitating a subsequent operation. It is therefore highly desirable to interpose between the separated peritoneal surfaces an adhesive and innocuous antiseptic which will form a film with exudates and act as an obstacle to adhesions until the danger of their formation is past. In operations for appendicitis it is quite common to encounter numerous adhesions, which, after separation, are apt to reunite unless proper preventive measures are adopted. Doctor Robert T. Morris, *Medical News*, April, 7, 1894, in an interesting clinical lecture at the New York Post-Graduate Medical School on "The Inch-and-a-Half Incision in Appendicitis," highly extols aristol for that purpose after an experience of over three years with that substance. His remarks on this subject are as follows: "The large, ragged portion of cecum that was involved in adhesions in this case to-day is now covered thickly with aristol, and after waiting a full minute to allow a lymph-coagulum to form with part of the aristol, the surplus powder is blown away. Aristol used in this way prevents reunion of adhesions. It is one of the most practical resources. I have separated old adhesions a great many times for former patients whose peritoneal surfaces had been injured by the routine technique of the day, and have relieved them completely with the aristol film." The simplicity and safety of Doctor Morris' method and the success attending its employment in his practice warrant its general adoption in abdominal surgery.

# The Physician and Surgeon

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## ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### EXTERNAL PERINEAL URETHROTOMY.*

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THIS operation was practiced about the middle of the eighteenth century, but then was abandoned, never having been very much in favor. It remained for SYME to revive it in 1844. He had a great deal of trouble in bringing the subject favorably before the profession, and it was five years from the time he commenced operating, and after he had performed the operation successfully a hundred times, that his words began to have the influence they were entitled to.

This operation is designed for the treatment of strictures that either cannot be dilated, or are so sensitive that dilatation causes too much pain, or those that are resilient and will not remain patulous after they have been dilated. The external operation has the advantage over the internal in that we can accomplish by the former what is so important, namely, the complete division of the strictured tissue, and in that there is less danger of hemorrhage, and moreover, that the cure is more apt to be permanent.

A stricture in the membranous portion of the urethra, if quite small or if resilient, usually demands to be divided, and the best way to divide it is from the perineum, that is, the so-called operation of external perineal urethrotomy. Sometimes a very tight stricture, so tight that only a filiform bougie can be introduced, can be gradually and permanently dilated. We have been surprised sometimes with what ease this can be done and for how long time the urethra remains patulous. There is another class of stricture which may not be small —may admit a fair-sized sound—and may be susceptible of dilation, but the dilatation is not permanent, the stricture reappears almost immediately after the dilatation. This is a resilient stricture. Thus we learn that we are not to perform external perineal urethrotomy, necessarily, because we cannot introduce a fair-sized sound, nor on the other hand can we be sure that the operation may not be indicated, though the stricture can be dilated.

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* Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

The typical operation is that of **Syme**, which is to pass the **Syme** staff into the urethra and through the stricture and to divide the stricture by cutting from the perineum with the point of the knife in the groove of the staff. The **Syme** staff is a steel sound curved to fit the urethra and grooved on its convex side. It is small and tapered for three inches, ranging from number six French at its point to number ten at the other end of this small extremity; the larger part of the staff is number sixteen French and joins the slender extremity with a shoulder. In doing the operation, the staff is carefully introduced into the stricture as far as the shoulder. It is then held firmly by an assistant, a bistoury is guided from the perineum into the groove of the staff and is then pushed along the groove carefully until all the fibrous tissue of the stricture is divided. In order to be sure of this it is also necessary that the point of the knife be introduced into the groove at the shoulder. Formerly it was customary to tie a silver catheter into the urethra, this being considered necessary to prevent extravasation of urine, but now it is seldom done, for we find that the urine passes more readily out of the wound in the perineum than it becomes extravasated within the tissues. The wound is dressed as nearly antiseptically as possible, and the dressing changed whenever the patient urinates. For the first few days all the urine is passed by the wound in the perineum; then it begins to pass partly through the urethra. The quantity passed by the urethra increases day by day and in a period, varying from two weeks to six or eight weeks, it is passed entirely per viam naturalem and soon afterward the wound in the perineum closes and the patient is well.

In those cases complicated with inflammation of the bladder, it is very useful to keep a drainage tube in the wound till the pus disappears from the urine. **Syme**, the great champion of this operation, stoutly maintains that there is no stricture through which he cannot pass his staff—not necessarily at the first attempt nor at the second, but by the use of rest and hip baths and other appropriate treatment, the tumefaction of the urethral mucous membrane is so reduced that he is finally successful in introducing his staff. He says: "As already stated, it is far from my intention to allege that the introduction of instruments may always be accomplished with ease. In general, I have succeeded at the first attempt: but in many cases, have had to wait days, or even weeks, before the passage could be hit. Indeed, on three occasions—one in private and two in public—I found it necessary to open the urethra anteriorly to the stricture, so as to obtain the assistance of a finger placed in the canal to guide the point of the instrument."

While we have the greatest admiration for **Syme** and his championship of this beneficent operation, still we believe that his method of making many attempts at different times to pass the staff, will not commend itself to the present generation. Most of us, I am sure, will prefer to finish the operation at one sitting, even though we may have to adopt a more difficult plan of operation to accomplish it. In those cases in which we are unable to pass the staff o even the filiform bougie, **Wheelhouse**'s operation stands us in good stead. This is essentially what **Syme** speaks of in the above quotation, namely, opening the urethra in front of the stricture and then passing a grooved director through the wound in the perineum and through the stricture, either by feel, or, as is possible in some cases, by sight. **Wheelhouse** has devised a staff for his operation. It is straight with a knob on the end and a groove along the back of the staff, this latter not extending along the knob. To do the operation, the staff is passed down to the stricture and the point of the knife passed through the perineum into the groove, thus opening the urethra about a quarter of an inch in front of the stricture. This furnishes healthy urethral tissue in front of the stricture. The edges of this wound are then held apart either by catch forceps or by a suture passed through each edge. The upper angle of the wound is held open by the staff, the knob or button being turned so as to project through the opening.

We may then be able to see the narrow opening of the stricture or we may have to depend upon the touch of the finger passed into the wound. Having passed a grooved director through the stricture, the rest of the operation is of course simple, and consists only in dividing the stricture upon the director.

This sounds easy but we are sure that those who have had experience will bear us out in the statement that it is oftentimes a very difficult thing to do and requires the greatest amount of patience and perseverance. There are other operations varying slightly in detail, but they are all based upon the precepts so masterfully laid down by **Syme**, and there seems to be nothing known to-day about the operation that was not fully understood by him fifty years ago.

We look upon the operation more in the light of a permanent cure than we did formerly. Even those cases which have no after-treatment, in the way of sound-passing, do well and remain well for years.

The following cases will illustrate the points mentioned above:

*Case I.*—M. D., single, about thirty years of age, a letter-carrier by occupation, had been troubled with stricture for years, and finally it grew so tight that he was able to urinate only by drops, and one day he came into my office with his bladder full and the urethra entirely closed. It was decided to operate and on August 26, 1889, chloroform was given. It was found impossible to pass the staff through the stricture. The urethra was therefore opened in front of the stricture, and after a long tedious groping, the way through was found. The division of the urethra was followed by sound-passing every three or four days. The patient had quite a severe chill and fever following each insertion of the sound but he made a good recovery and has not had trouble since. It was formerly my custom to pass a full-sized sound every two weeks after the wound had healed, and later on once a month as long as the patient was willing to come. This man came only three or four times. I could not persuade him to take his punishment afterward. This case was operated upon four years ago and the man has had no difficulty since.

*Case II.*—A. M., was suffering from a tight stricture. This also could not be penetrated by the staff, and I had to operate as in the former case, open the urethra in front of the stricture and then work my way through. This patient made a good recovery and has remained well for three years, though he has not had a sound passed since six months after the operation.

*Case III.*—E. H., colored, widower, forty years of age, has had stricture for many years, and for two years there has been constant discharge of urine, due to overdistention of bladder, so constant and uncontrollable that patient has worn a rubber bag to catch the urine. There was abscess of scrotum, due to extravasation of urine. Temperature was 104°. January 16, 1892, external perineal urethrotomy was performed. Here it was possible to use the grooved staff, and consequently the operation was done with little delay. Temperature remained 104°. Two days later the abscess was opened and temperature then came down to normal. Everything was satisfactory until one day a large steel sound was passed—the same which had been used several times before. There was considerable discharge of blood, patient had a severe chill next day and fever ranging in neighborhood of 103° in the evenings. Salol was given in ten grain doses three times a day and the wounds in the perineum and scrotum were carefully washed out with bichloride solution and hydrogen peroxide. Patient recovered after four or five days of fever, having been confined to his bed in all about six weeks. He was relieved entirely of his symptoms and has passed a good stream of urine since. This patient also refused to have the sound used after he had left his bed.

*Case IV.*—WM. O'B., thirty-seven years of age, married, had had stricture for ten years. When he came for treatment there was complete stoppage of urine for more than twenty-four hours. The bladder was aspirated as I did not succeed in passing a catheter. April 3, 1894, the stricture was divided from the perineum, SYME's staff having been first passed through it. Patient made a complete and uneventful recovery. The sound has been used with this patient since his recovery, at first every two weeks and then every month. He passes a full stream without trouble.

*Case V.*—C. S., aged forty-five years. This patient was kindly referred to me by my friend DOCTOR SHERRILL, who was compelled to aspirate the bladder April 9, 1894. He was sent to Harper Hospital the same day, and the same day I divided the stricture. In this case I was also able to use the staff. Recovery was somewhat delayed by chill and fever following the use of the sound. Patient left hospital at the end of four weeks. He also has had no sound used since recovery, but passes water satisfactorily.

*Case VI.*—A. B., colored, aged thirty-two years. This patient also was referred to me by DOCTOR SHERRILL. He aspirated the bladder April 14, 1894, and the next day I divided the stricture without the staff. The urethra was opened in front of the stricture upon the staff and by holding the wound open I was able to see the opening through the strictured part and succeeded in passing a grooved director without much delay. Though I passed a large steel sound before the patient recovered from chloroform, I had a great deal of trouble in doing so afterward, and about two weeks after the operation I decided to open the urethra again. This time I passed the OTIS internal urethrotome into the urethra and out through the wound in the perineum and cut as I drew the instrument back. This I did because I had no trouble in passing the sound from the perineum into the bladder. I believe, though, that the cause of the difficulty was the comparatively large division of tissue and the pocket caused by the opening in the urethra. The point of the sound would engage in this and I was not able to pass it onward, unless I put my finger into the perineal wound, but this opened up the wound so much that I ceased to do it. I was not able to pass the sound by the aid of the finger in the rectum. The patient, however, made a perfect, though tardy recovery, and now passes a full stream without having the sound used.

# THE SURGICAL TREATMENT OF GRANULAR CONJUNCTIVITIS: A MODIFIED INSTRUMENT.*

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Trachoma, granular conjunctivitis, granular lids, chronic contagious conjunctivitis, Egyptian ophthalmia, military ophthalmia, all synomyms for one and the same disease, is a malady familiar to all ophthalmic surgeons, and not infrequently proves itself a stumbling block not only to the general practitioner, but also to the specialist.

Being a disease which sometimes baffles our most earnest and painstaking efforts to cure, and one also which at times works dire destruction to the vision of our patients, it is one of exceeding and absorbing interest to us, and every new advance in its therapy or new method advocated for its eradication is hailed with eagerness by all who have the good of the unfortunates thrown upon their care, at heart.

In order that you may be struck with the wide and varied therapeutic measures employed for its relief, allow me. before passing to a short consideration of its surgical management, briefly to enumerate a few of the remedies which have been more or less strongly advocated for its cure in the last ten years. They comprise the following drugs: Nitrate of silver in various strengths; sulphate of copper in crystal, in ointment, or in solution; bichloride of mercury in various strengths; yellow oxide of mercury ointment; lemon juice; pure powdered boric acid; boric acid in solution; biniodide of mercury; jequirity; calomel; hydronaphthol; glycerite of tannin; subacetate of lead; iodoform; oil of cade; carbolic acid; pilocarpine; naphthol; creolin; iodide of silver; mitigated stick; alum; zinc; pyoktannin; liquor potassa; beta naphthol; hydrastin; aristol; equal parts of saturated solution of iron, alum, zinc and copper.

In looking over this list of remedies and the zeal with which each in its turn is lauded, one is immediately struck as much by the wide range of agents employed as by the extravagant results claimed by each individual for his pet remedy.

To the discovering eye and the mind familiar with things medical, this vast array of remedial agents suggests the fact that here is a disease, the quick and rapid cure of which has for many years been an unsolved problem, and yet, upon closer examination, one sees that those various remedies naturally fall into one of two groups—(1) Astringents, irritants and caustics; (2) Antiseptics.

The etiology and pathology of this disease are subjects which have engaged the attention of investigators for many years, and it will be profitable for us to glance briefly at some of their conclusions, and as we carefully study these conclusions we find that in all probability the disease is caused by a specific microörganism which, when transplanted into the human conjunctiva produces the typical trachoma which histologically is characterized by deposits of lymphoid tissue composed of round cells in a delicate reticulum in the midst of the inflamed, thickened and infiltrated conjunctiva.

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*Read before the Detroit Medical and Library Association.

The fact that the conjunctiva is already chronically inflamed, or that the general condition is depressed by ill-feeding, defective nutrition, some dyscrasia, or bad hygienic surroundings, make the subject much more liable to be attacked by trachoma. There is, therefore, no question about the contagiousness of the disease in its early stage. The microörganism itself is deposited in the trachoma granulations, but not outside the individual cells, not on the surface of the conjunctiva, but in the conjunctival follicles, hence the surgical procedure of crushing or squeezing out the granulates is histologically correct.

The disease presents certain peculiarities which it might be interesting to notice as we pass. For instance, there are certain races which are much more prone to the disease than others. The Irish and Jews are particularly prone to the disease and convey it to the uttermost parts of the earth. The Negro and American is practically exempt from its ravages.

In high altitudes the disease does not thrive well and cases which are treated in high altitudes recover much more quickly and promptly than if treated in lower countries.

As we get still further into the literature of the subject we find that the disease was known to the ancients and that Celsus gives a very good clinical picture of the malady. The ancients employed also surgical means for its cure, so that the surgical treatment of the disease is by no means a modern procedure. The ancients employed scarification in its management, also friction by means of fig leaves.

Straggling down through the ages various surgical means have been tried, including the following varieties of procedure:

Scarification, friction, grattage, squeezing, cutting, or scraping out the individual granulations, panotomy, massage, excision of the cul-de-sac, galvano-cautery, electrolysis, rasping with pumice stone, excision of the conjunctiva and transplantation of thin skin or mucous membrane, curetting, slitting of the conjunctival folds and individual granulations followed by squeezing, the removal or crushing out of the granulations by variously devised special instruments, chiefly forceps.

Among the latter the most efficient one is the forceps invented by Professor Herman Knapp, of New York.

This operation is done with Professor Knapp's forceps in the following manner:

The patient is thoroughly anesthetized, chloroform being necessary. The conjunctival sac is thoroughly disinfected, one blade of the forceps is passed well up into the conjunctival cul-de-sac, the lid being thoroughly washed, then the other blade is closed, firmly resting on the margin of the lid. Exacting considerable pressure the lid is grasped and rolled between the two rollers of the forceps, the object of the whole procedure being to crush the granulations and squeeze out their contents.

This is a procedure which is surgically and pathologically correct, because there is a deposit of cells here which must in some way be got rid of, and if they can be thoroughly and quickly removed by a surgical procedure such as this, a great good has been accomplished.

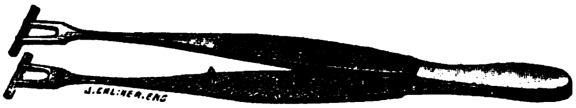
But, like many such surgical procedures, the broad-daylight realization of our expectations casts a very different aspect upon our result than might have been expected from the softer lights and shadows of our theoretical reasoning. I have done this operation many times, am still doing it, and will continue to practice it in the future in suitable cases, because I believe it shortens the ordinary treatment of granular lids by perhaps six or eight weeks, which indeed is, in many instances, an item of considerable value to our patients, but neither it nor any other surgical procedure known to the writer will "cure" granular lids when once firmly seated.

It was my privilege to attend the meeting of the American Medical Association a year ago last June in Milwaukee, and in the "Section on Ophthalmology," composed of the leading lights of American ophthalmology, men arose and said they had cured granular lids by one operation. I had never been able to accomplish such a result either before or since, and I think there is no doubt those men had made errors of diagnosis, mistaking papillary for granular conjunctivitis, two forms of conjunctival disease which should be carefully diagnosed. PROFESSOR HERMAN KNAPP himself says that there are many cases which are not cured by surgical means alone, but it must be followed by caustic applications. TROUSEAU, of Paris, says he has never seen a complete and permanent cure from surgical procedure alone.

In view of this, one cannot but feel like criticising severely and unfavorably these advocates of so-called instantaneous and "sure cure" methods, and to get this procedure down to where it belongs, namely, a valuable "help" in the cure of granular lids. We must not, therefore, leave our patient alone after having thoroughly crushed out the granulates, but due treatment must be pushed along and the cure completed by means of astringents, caustics and antiseptics, and I would place in the fore rank of remedies, nitrate of silver solution, sulphate of copper crystal, and bichloride of mercury solution, each used according to their several indications.

While operating for granular lids with these forceps of PROFESSOR KNAPP'S, before my class in the Detroit College of Medicine, I remarked that the success of the operation was somewhat marred by the fact that a narrow strip of the conjunctiva at the inner and outer canthus was left untouched, because the forceps were so constructed as to allow the side bars to project beyond the rollers. DOCTOR SHERMAN, of this city, then a student in the senior class, said he could remedy the defect, and he did so.

This instrument, made from his model, by H. J. MILBURN & COMPANY, 81 Woodward avenue, Detroit, is an efficient instrument and free from the defect visible in the original KNAPP roller forceps.



The surgical treatment of the sequelæ and complications of granular lids, comprising panotomy, entropion, dissections, et cetera, is too broad a subject to be taken up at this date.

*Conclusion.*—The surgical treatment of granular lids is a valuable procedure for shortening the order of treatment, but will not in itself completely cure the disease.

# INFANTILE ECZEMA—ESPECIALLY IN ITS RELATION TO THE INFANT'S FACE.*

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SEVERAL motives inspire me to present to you this evening the above subject. Firstly, eczema is the most common, and therefore the most important, of all cutaneous diseases, especially of the infantile period. Secondly, the difficulties that I have experienced day after day in the proper management and cure of this unsightly disease have been manifold. The unfortunate babes and infants thus afflicted form a large percentage of those attendant on our hospital dermatological clinics, and cause, at least to me, even a larger percentage of earnest thought and solicitude. Thirdly, it is my desire to put before you in its latest light our knowledge of the nature, the pathology, the etiology, and the cause of infantile eczema in general, and of the behavior of this portion of the infant's skin, the face, under its onslaughts under varying condition of acuteness and chronicity. I shall refer to infantile eczema as a whole when speaking of its nature, its pathology, and to some extent of its etiology, as the nature, the pathology of one part cannot be disassociated from another; but in its application to locality I shall, as the title of the paper indicates, limit myself to the infant's face, as a broader view of the subject would take up more time than has been allotted to me. For the same reason I must leave to some other evening the discussion of the differential diagnosis and of the treatment most successfully pursued.

Eczema (from the Greek, ἐκξέω, to boil over) is a catarrhal inflammation of the skin, acute or, more frequently, chronic in form; non-contagious in character; ushered in by erythema, papules, vesicles or pustules, single or commingled, scattered or grouped; associated with more or less inflammation, burning and itching; followed by a discharge, which is an almost constant symptom of this period of the disease, and by the formation of crusts of divers colors; and ending in desquamation.

Such, in brief, is a description of eczema; but so polymorphous are its manifestations; so obstinate at times its character; so indefinite its symptoms; so obscure its origin, being frequently associated with or dependent upon many other morbid conditions, of which it is no more than a cutaneous expression; and yet at times so strikingly characteristic its picture, especially at this period of infancy, owing to the delicacy, softness and tenderness of the skin, that it would be impossible to describe completely in so few words so protean an affection.

That eczema is an inflammatory disease no one questions, as it is attended with some or all of the concomitants of local inflammation, such as pain, heat redness and swelling, with functional disorder of the parts. That it is of a catarrhal nature, analogous to catarrh of the mucous membrane is evident, as the process of evolution is the same in both.† "Just as catarrh of the mucous membrane consists in a more or less increased secretion from the mucous glands and an abundant desquamation of the peculiarly altered superficial epithelial layer combined with an increased exudation from the overloaded vessels of blood-serum containing a greater or less amount of cell-elements (serous or purulent catarrh), so in eczema, there is a similar discharge of blood-serum and cell-elements, with a similar shedding of the horny layer, and, as chronic catarrh of the mucous membrane is characterized by swelling, infiltration and increased redness, so chronic eczema presents infiltration and hyperemia of the skin."

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*Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

†ZIEMSSEN: "Hand-Book of Skin Diseases," 1885.

For the better and proper study of eczema we recognize four clinical elementary lesions, forms or stages, according as at the beginning the eczema takes on an erythematous papular, vesicular or pustular form, though nature does not always conform to such arbitrary rules. In one case an erythema may begin the onslaught and the effected surface may in rapid succession become moist, infiltrated, dry and desquamating. Again, the different lesions may commingle in a variety of ways or in varions stages of development, may be influenced by the degree of inflammation present, or by the anatomy peculiar to the parts attacked, or may be modified by changes dependent on chronic inflammatory action. Again, the vesicles, when formed, may burst or rapidly change into pustules, causing an acrimonious discharge, leaving a surface red and weeping, or covered with yellow gum-like crusts. Or, again, papules may first appear and instead of retaining for any definite time their characteristics may pass into other forms.

There are, however, some features common to all these lesions. More or less hyperemia is a constant symptom. Exudation at times slight, at other times considerable, is usually present, resulting either in discharge and subsequent crusting or in the formation of plastic material which has the power of stiffening linen. Though exudation is usually to be found at some period of the disease's history, and was at one time thought to be a feature inseparable from the true character of eczema, its presence or absence depends on the variety of the existing lesions. As there is no discharge in the erythematous and papular forms there is no desquamation. But even in these cases the inherent tendency to the development of a moist surface, the characteristic that marks the eczematous as distinct from other forms of dermatitis, is manifest on the slightest external violence. In the other two varieties the exudation, whether fluid or plastic, is apt to be large in amount and the crusting excessive, sometimes of a thick, horny-like character, producing bright yellow scabs. On account of this exudation into the subadjacent areolar tissue, and on account of the cellular infiltration, thickening, especially in chronic cases, is noted. In acute cases temporary edema still further increases the thickening.

Itching in a varying degree is constant. Sometimes it is so mild as scarcely to attract the infant's attention; then, again, it is so unendurable as to render it impossible to prevent the little patient from digging its nails into its already tortured face with a spirit almost fierce, destroying the nerve filaments and thus securing a temporary relief, but leaving the face swollen, bloody and angry. The little relief it gets but urges it onward to secure something permanent till the face throws out in defence a thick, gummy-like fluid which, mingled with blood and the debris of epidermic and diseased tissue, presents a spectacle sad indeed.

Each lesion may have its stage of acuteness, subacuteness, or chronicity, terms which are used in two senses, referring either to the intensity of the inflammation or to its duration. Acute eczema is characterized usually by all the evidences of local inflammatory action, and may or may not be of so severe a nature as to have been ushered in by the constitutional symptoms such as general uneasiness, sleeplessness, gastro-intestinal derangement, high temperature and rapid pulse. Soon, however, one or other of the elementary lesions makes its appearance, which may quickly subside or pass into the formation of crusts with more or less extensive infiltration. Often, though, an eczema will recur frequently in the same situation with but mild secondary changes. Such a condition is difficult of classification. Where, however, the acute symptoms have subsided, but there yet lingers a surface reddened, infiltrated, with more or less discharge, crusting and scaling, where the fire seems to be mouldering, ready to be rekindled into activity by some external or internal agency, it might properly be called subacute. Where, again, more or less permanent changes have already taken place in the structure of the skin, its appendages and its glandular system, where there is subsidence of the active life but there is still a tendency to exacerbation, though of a lower degree it is rightfully recognized as chronic.

In eczema erythematosum the characteristic symptom throughout the entire course is erythema. It appears on the face as an indefinite redish patch, fading gradually into the surrounding healthy skin, is of a variable size with an inclination to spreading, is attended with more or less heat, swelling and itching, the infiltration of the tissues being at times so extensive as completely to close the eyes. In color it varies from a bright red to a violaceous hue, due somewhat to the exciting cause. It is attended with no discharge, unless by scratching the surface has been irritated to the point of exudation, and it passes in the course of a few weeks either away or into a state of slight desquamation or into a condition of inactive chronicity. It is subject to relapses.

Eczema papulosum is rarely observed in the face, especially of the infant, but when it does it is marked by the appearance of papules, usually redish, shading from a bright red to a dark violaceous, and which may be either discrete or confluent. Its life is usually that of a papule, but it may pass into other varieties, especially if distorted by scratching, for itching is a marked symptom.

Eczema vesiculosum is the most common and the most representative form. A feeling of heat and irritation is first felt on the infant's face, then a diffused redness is seen, but soon the face is more or less covered with minute clear vesicles, which a clear or opaque yellewish fluid soon distends. Swelling, infiltration, itching, scratching, rupture, exudation of fluid follow in rapid succession, leaving an excoriated, irritable surface. In favorable cases the fire will sooner or later burn out and the skin resume its natural functions. In other cases, though the exudation may cease and the active inflammatory symptoms subside, there remains some coloration, some thickening, and the epidermis is enveloped with a fine scaling. This is eczema squamosum, to be described. In unfavorable cases the excoriated, irritable condition may increase in intensity and the condition pass into that of eczema rubrum, to be noted in detail.

Eczema pustulosum may be ushered in as a pustular lesion or may follow one of the other, especially the vesicular, both varieties being present at the same time. Like the vesicles the pustules from the accumulation of their contents soon break, discharging an ichor often exceedingly irritating to the already inflamed skin, but usually passing into the formation of greenish-yellow or dark-colored scabs. Like the vesicular form the pustular may soon pass away, may increase in intensity, or may continue for an indefinite period, passing into the eczema rubrum or squamosum. This form is especially noticeable in infants who are in a debilitated state from improper food, improper care and other diseases or in whose constitution lies the lymphatic diathesis.

Consequent on continued inflammatory action we have as a sequence of the four primary lesions, but usually of the vesicular and pustular varieties, a condition of decreased and one of increased intensity. In the former, the eczema squamosum, the inflammatory action has subsided, but there lingers the subacute condition already described, which may continue as such for an indefinite period or may at any time be flamed into one of acuteness. Here the exudation is not active, the epidermic shedding is of a passive nature and there exists more of a state of hyperplasia of the cells of the rete mucosum. In the other, the eczema rubrum, the inflammation is intense. As the result of such intensity and of the scratching incident thereto the lower layers are entirely denuded of their natural covering and the surface lies uncovered, hot, angry and weeping, surfeited with a fluid clear or turbid, which may dry into yellow or yellowish-brown crusts. The infiltration is marked and as the tendency to chronicity is inherent the induration is a special feature. The cervical glands, especially in those infants suffering from the pustular form, take on an inflammatory condition and abscesses frequently ensue. The infant becomes irritable from suffering and want of sleep and indisposition to food and soon shows the results of a worn-out constitution. Fissures may be found behind the ears and at the corners of the mouth, and if care is not taken, the denuded surfaces in the former as they heal may become united and bind the ear back to the scalp. The eyelids and their glands are often involved, become inflamed and agglutinated from the exudation. The mucous membrane of the nose frequently becomes inflamed and covered with crusts.

*Pathology.*—As it has been shown, eczema is a catarrhal inflammation of the skin, of a high grade, at times exhibiting many and rapid changes; so in the consideration of its pathology we must take into account the several stages, as each runs a distinct pathological course. Again, the acute passes most frequently into the chronic and in its course invites other pathological changes.

In its pathological anatomy the acute stage offers no changes different from those of other inflammations of the epidermis except in the character and amount of the exudation. Hyperemia and congestion of the skin mark the onslaught. The larger blood-vessels and the capillaries are filled with blood, the consequences of † "their more or less rhythmical and alternate dilatation and contraction," each successive dilatation gradually but surely rendering the walls less capable of contraction till relatively permanent dilatation ensues, then blood stasis and engorgement, and then the picture of erythema.

In the papular and vesicular stages the primary seat of inflammatory action is in the papillary layer. The circumscribed inflammation of the papilla forms the papule. Besides the dilatation and engorgement of the vessels as already detailed the papillæ become swollen and the connective tissue corpuscles and fibrous bands are conspicuous by their swollen condition. Migratory spindle cells mingle with those of the rete mucosum, forming a dense network, extending into the upper layers. The rete cells also swell by inhibition and the serum from the dilated vessels, from the swollen rete and spindle cells pushes its way to the surface, gradually raising in spots the outer layer to form the vesicle, to exude later from the latter's overdistension, and, bursting upon the free surface of the epidermis to expose by the loss of their covering the deeper layers. In the pustule there is a predominance of the white blood corpuscles. The exudation may be fluid in character or be so thick as to be plastic in quantity. Where the development of the eczema is marked by its rapidity these spindle cells increase in abundance, form a thick network, which, together with the greater exudation of serum causes an increase of inflammatory production with a moist surface, characteristic of the moist eczema.

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† HYDE: "Diseases of the Skin," 1893.

Consequent upon the inflammatory action thus described there occur in the deeper portion of the skin certain hypertrophic and degenerative changes. The deeper layers become engorged with plastic material, especially marked about the blood-vessels, the rete becomes thickened, the pigmentation more intense, the papillæ enlarged, the corium infiltrated and as the result of impaired nutrition, the sebaceous glands and hair-follicles atrophied.

*Etiology.*—What is the cause of all this misbehavior? If I could answer in a few words I would have the key to the successful treatment; but the causes are so numerous, upon the removal of which depend the amelioration and the obliteration of the disease, that you can well realize the difficulties we have to encounter, when it is almost an impossibility at times to discover the true source, as we must judge almost entirely from objective symptoms. It has been the tendency of late years to give a wider scope to dermatology, to view the different affections of the skin not as entities in themselves, not as morbid conditions confined to the skin alone, but as the outward expression of more deeply seated and general pathological phenomena. Though there are, undoubtedly, skin lesions that are local in their significance, that are confined to changes in this organ of the human anatomy merely, and whose existence beyond its immediate neighborhood is not appreciable, still the enlargement of our views to include within the scope of dermatology all morbid conditions that appear on the integument irrespective of their cause, nature, or character, this taking of dermatology out of the narrow field of local, up to a plane of general, importance, has given an impetus to the study of this subject that has rendered the treatment of dermatological lesions more natural, therefore more scientific and successful. Taking this broader view we must, to obtain a satisfactory explanation of these pathological phenomena, look beyond the pale of the face into the deeper functional or organic changes.

Any condition of the system, such as one of lower vitality, one of inanition, which deteriorates the system, interferes with the proper performances of the various physiological functions of the body and renders it prone to attacks of disease, renders it likewise more prone to attacks of eczema. But eczema attacks not only the weak and those suffering from other constitutional or other skin diseases, but the strong and those of apparent robust health. Whether in the one case the cause is a direct one, and in the other the skin is involved in the general deteriorated physical condition is a problem at times difficult of solution.

It is authoritatively stated that no babe ever came into the world with an eczema, and yet it seems that there must be some influence which is hereditary in its character; some influence that leaves the skin in so vulnerable a state that it is peculiarly susceptible to these attacks. Especially so is the face. What is there peculiar to fetal life that renders the unborn babe fortified against these attacks of eczema? Syphilis, variola, scarlatina are known to make no exception of the fetus. Is it that the protection to the skin is afforded by its continuous immersion in the amniotic fluid, which renders the integument impregnable? Or, is it that the changes incident to the life of the newborn babe make the tender integument more sensitive to the attacks of eczema? Is there some inherent weakness of the skin which renders it liable to catarrhal inflammation, the same as other organs are born weak?

Another problem difficult of solution is the relation of other constitutional diseases in the parents to eczema in the offspring. What influence does, for instance, asthma in the parents bear to eczema in the child? There seems to be some relationship of cause and effect between the two in the same person. What significance do other constitutional diseases, such as scrofula, tuberculosis, rickets, have in the causation of this disease? We do not know, so I merely call attention to these facts to show the trend of thought in the etiology of the disease and to suggest a possible relationship.

Without doubt the most common cause lies in some derangement of the alimentary tract, either by the use of improper food, or of artificial food, or even of proper food injudiciously administered, or in the infant's inability to digest or assimilate even proper food. In this list of causation are included the imperfection from numerous causes of the mother's milk and the method by which it is given, whether due to the irregularity in the feeding, ill-judgment in the amount given, ill-judgment as to the time proper to the weaning of the infant, ill-judgment as to the quality, quantity and administration of the new food. Among other causes derogatory to the proper functions of the alimentary tract may be included any disease that may directly or indirectly interfere with the proper assimilation of food, thus rendering the food an irritant, intestinal worms, retention of the excreta and the changes incident to dentition.

With the organ in a condition favorable to the development of eczema, an expression by which we cover a multitude of ignorance and which may mean much or may mean nothing, numerous external objects may be sufficiently exciting agencies. Probably the most common are exposure to sudden atmospheric changes, whether due to too much cold or too much heat, for the disease is more prevalent in winter and summer; improper clothing, lack of cleanliness, the use of much water, especially in those already suffering from the disease, the application of medicinal substances capable of producing irritation, disturbances caused by other cutaneous diseases, particularly by the animal and vegetable parasites, scratching with the finger nails and other substances, rubbing with brushes and other instruments. Stress do I desire to lay on the too frequent use of the bath in children suffering from eczema. Whether water is a good medium for the proliferation of the coccus which is supposed to be the cause of the trouble, or whether the water is an irritant sufficient in itself, is difficult to tell; but I have seen many a case, where the skin was irritated to a degree insupportable by the little patient, get well merely by the discontinuance of the bath, which had been frequently and so assiduously employed, and by the application of a soothing lotion or ointment.

There has been an effort of late by many dermatologists to consider the foregoing named causes as merely factors in the causation of this disease, placing the skin in a condition favorable to the reception and development of certain powerful and everywhere present microörganisms, which alone are responsible for the mischief produced.[†] **Ravogli**, as the result of observations based upon experiments on living animals with the microörganisms peculiar to eczema, feels himself justified in forming the following conclusions:

(1) Eczema is a local affection of the epidermis of a chronic inflammatory character, contagious under favorable circumstances.

(2) It is caused by pyogenic microörganisms (staphylococcus pyogenes albus) developed upon a previous inflammation of the skin.

This same observer believes that the same difference exists between a simple urethritis and a gonorrhea. That eczema cannot be excited without the presence of a specific microbe.

[‡]Another observer comes to the same conclusions as the result of benefits obtained by the use of parasiticides and antiseptics in the treatment of the disease.

I believe from clinical observations that there can be no doubt that eczema in the majority of cases is of internal origin, though often there is no internal cause appreciable. I admit that it is difficult at times to discard the microbic theory, as difficult as it is at times to accept it, but he who would be successful in the treatment of infantile eczema must take the middle ground and look beyond the pale of the skin to some deeper source. Although an ardent exponent in my instructions of the bacterial origin of many skin lesions, I must give the general system some greater causation in the production of this disease than an agent placing the integument acceptable to the growth and proliferation of these bacteria. In regulating the bodily functions we do something more than render the soil inimical to this particular form of vegetation. But we are still in ignorance and must look to the fuller knowledge of the future to determine the relationship between the condition of the skin necessary to the life of microörganisms and the microörganisms themselves.

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## SINGULTUS.[*]

By DELOS L. PARKER, M. D., Detroit, Michigan.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

The writer desires to report four cases of persistent singultus that have occurred in his practice or under his observation during the past seven years, and to refer particularly to the treatment employed.

*Case I.*—A middle aged male in good health was attacked with hiccoughing upon which the ordinary domestic remedies had no effect. The writer was summoned and applied the various remedies of the text-books. No relief wa secured from any excepting possibly chloroform. During partial anesthesi from chloroform the spasm ceased but always returned as soon as the anesthesi was withdrawn. At the end of the third day of the attack exhaustion of the patient and discouragement of the physician was marked. At this time for some reason or other dry cupping of the abdomen was decided upon. An ordinary drinking glass, from which the air had been exhausted by burning paper, was applied to the abdomen. As soon as the suction was well established the hiccoughing ceased and the patient fell asleep. After fifteen or twenty minutes the glass was removed. The patient slept soundly about two hours when he was suddenly awakened by a return of the spasm. Recourse to the cupping after the manner of its first application again stopped the hiccoughing which did not return. After a sound sleep of several hours the patient went about his usual duties.

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[*] Read before the Detroit Medical and Library Association.

[†] A. Ravogli: "Concerning the Etiology of Eczema." Read before the Pan-America Medical Congress, Washington, District of Columbia, 1893.

[‡] H. G. Klotz: "The Principles of Antisepsis in the Treatment of Eczema." Rea before the two hundred and twenty-ninth meeting of the Newport Dermatological Societ

*Case II.*—A young man nearly dead of tuberculosis was attacked with hiccoughing. The application of simple remedies being of no avail the writer was summoned to attend him. Cupping of the abdomen was practiced and the spasm yielded without delay. After two hours rest the hiccoughing returned, which a second application of the same remedy quieted for good.

*Case III.*—A middle aged man much reduced by a severe attack of dysentery. Hiccoughing came on and was very persistent and exhausting. Different physicians of the neighborhood and of neighboring towns joined forces in the treatment of this spasm but entirely without avail. Chloroform acted in this case exactly as in Case I. A curious circumstance was noted here. So long as the patient exercised himself by singing the hiccoughing was absent. Advantage was taken of this. Sympathizing neighbors joined him and together they intoned good old Methodist hymns until the muscles of phonation grew weary and demanded a much needed rest. After some days of almost constant hiccoughing one of the attending physicians remembering something of Case I telephoned to the writer here at Detroit. The latter advised the remedy that had helped him out of two similar dilemmas. In this case two ordinary drinking glasses were used at the same time. Directly they were applied the spasm ceased and sleep came on. After about two hours the hiccoughing returned but was quickly dispelled by the same means as first employed. There was no further return of the spasm and shortly after this the patient regained his usual health.

*Case IV.*—An interne of a hospital in one of the great cities of the United States called one evening on a friend who held a similar position in another hospital. In answer to an inquiry as to how everything was going on in the hospital, interne number two said all right with the exception of a case of hiccoughing which we are unable to control. Interne number one had heard of two of the cases reported in this paper and said: "Is that all? Why, it is only fun to cure hiccough. Fetch me a cupping outfit." One was brought him which he applied to the abdomen. As soon as this was done the spasm ceased. After a couple of hours a return of the hiccoughing was stopped in the same way and no further trouble was experienced.

The *modus operandi* of this remedy seems to be that by drawing forward a portion of the abdominal wall and thereby tending to enlarge the abdominal cavity enough force is exerted upon the upper side of the diaphragm, by atmospheric pressure, to overcome its spasmodic action.

It is curious to note the return of the spasm about two hours after its first disappearance. No explanation of this occurs to the writer.

In using ordinary drinking glasses for cupping purposes there would seem to be less danger of burning the skin of the patient if a few drops of burning alcohol instead of paper were used to exhaust the air.

In removing the instrument care should be taken to press lightly upon the skin near the edge of the glass with a lead pencil or other pointed instrument and allow the air to pass in gradually. Forcible removal is quite painful.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, SEPTEMBER 3, 1894.

THE PRESIDENT, JOHN FLINTERMANN, M. D., IN THE CHAIR.

### DISCUSSION OF PAPERS.

DOCTOR DON M. CAMPBELL read a paper entitled "The Surgical Treatment of Granular Conjunctivitis: A modified instrument." (See page 437.)

DOCTOR CONNOR: I have listened with great interest to the scholarly presentation of this topic as just given by the essayist of the evening. The conclusions given are warranted by the facts before the medical profession of to-day. The pair of forceps first shown by DOCTOR CAMPBELL are different from those commonly used by myself. I should think that the conjunctiva would be liable to injury by the use of the first pair. I shall be interested in giving the modified instrument a trial. The surgical treatment of the subject under discussion is, as has been said, as old as the history of medicine, but it is only recently that it has come into prominence. A large number of instruments have been put upon the market for the eradication of the trachomatous bodies, and after making due allowances for the enthusiasm of each inventor, it must be acknowledged that considerable advance in treatment has been made by their use. Of the various devices the most important is the roller forceps. In my early practice before these came out I was accustomed to use my thumb nails; this practice was very effective for those bodies which could be reached but I was unable to reach those trachomatous bodies embedded in the cul-de-sac. The principal thing to accomplish in these cases is to squeeze the lymph masses. In my practice I have never been able to cure a case with application of the forceps although most of them have been materially helped. In the West, upon the plains, where the air is laden with an irritating dust, one-fourth of the cases seen in an oculist's practice are those of trachoma. DOCTOR GIFFORD is the authority I think for the statement that the surgical treatment of trachoma is not always a simple procedure and is sometimes attended by complications, and if the treatment is undertaken by one who is not an expert, it is safer to have resort to medical measures only. My own opinion is that it is very necessary to employ surgical measures at the proper stages only and to withhold them at improper times. One reason why the cases which we see here do so well is that as a rule the hygenic surroundings of the patients are better than those of the larger cities and the dust is not so irritating.

**Doctor Campbell**: I would add that in the modified instrument here shown the rollers can be removed by means of a spring and made aseptic.

**Doctor Gillman**: I have listened with pleasure to the paper as it is upon a subject in which I have been much interested. While doing ophthalmic work in the Orient at the hospital in Jerusalem, where there were about seventeen thousand consultations a year, it was my experience that a majority of the cases treated were those of granular ophthalmia. Two years ago I read a paper upon this subject in which I advocated the use of the forceps and since then I have seen no reason to change my views. Some cases fail to get well with their use. Knapp recognizes three forms of trachoma, placing in the first class cases of simple follicular trachoma which I am disposed to regard as a simple follicular inflammation. In the treatment of these cases I am wedded to the use of sulphate of copper. I have seen pannus, vascular keratitis, ulceration of the cornea disappear from a simple squeezing of the follicles. When I first performed this operation I was afraid to make use of much pressure but now in suitable cases I make use of considerable force.

**Doctor Eugene Smith**: I have been much interested not only in the paper but also in the discussion. In my practice, both hospital and private, I have seen a large number of cases of trachoma. Some twenty years ago after the prevalence of extensive forest fires, such as we have lately suffered from, when the atmosphere was laden with smoke there appeared almost an epidemic of trachoma. As an adjunct to medical measures the expression treatment is far ahead of anything so far suggested. I made use of the Wecker capsule forceps long before the Knapp forceps came out. The aim of any instrument used for this purpose is to express or squeeze out the contents of the follicles; too often the roller simply crushes down. In 1873, while in attendance upon a German clinic, I was surprised to see the use which was made of subacetate of lead. After my return I made use of it in my practice with very gratifying results, limiting its application to those cases where there is no abrasion of the cornea. I have also had very good results from the use of a three per cent. solution of jequirity. In cases of simple trachoma such as we find in school children the trouble often disappears after one operation, a very few applications being necessary afterward. The morning after the operation the lid is generally covered with a thin coating of lymph. After the grattage treatment the conjunctival tissue disappears and is replaced by cicatricial tissue although it must be confessed that the trachoma generally disappears also. In the prolonged use of any drug we find that the conjunctiva becomes tolerant and it is necessary to change. The one point which I would criticise in the instrument presented by Doctor Campbell, which is far superior to the one devised by Doctor Knapp, is that there might be an improvement in the spring so that a more thorough cleansing might be easily effected.

**Doctor Hoyt**: I cannot add very much, but express my pleasure at having heard the paper and the discussion. I remember in country practice a number of years ago to have seen a good many cases of trachoma. What impressed me at the time was that they occurred among farmers who were in reduced circumstances and placed in bad hygienic surroundings, and among those who spent their summers in clearing the land by burning off the timber.

**Doctor Smith**: With regard to the use of jequerity I would use it in cases where the cornea is covered with a pannus and is almost opaque. As an instance of its efficiency I will cite one case which occurred in hospital work some three years ago where the condition of the cornea was so bad that it seemed almost hopeless to attempt to do anything. In three weeks after the use of jequirity the girl was able to read her letters.

**Doctor Campbell**: I would thank the gentlemen for the kindly way in which they have discussed my paper, and shall take pains to make use of the suggestions advanced.

## REPORTS OF CASES.

**Doctor Hitchcock**: I wish to report a case and exhibit a specimen of rupture of the intestine. The patient was employed in a saw-mill and at the time of his injury was engaged in tending a rip-saw. The board which he was pushing forward to feed the saw became caught and thrown violently back striking him in the upper part of the right scrotum and in the right groin. The accident occurred about 5:50 o'clock in the afternoon and I saw him first about 9 o'clock that evening. There had been some vomiting, and three-fourths of a grain of morphine had been administered to relieve pain. Most of the pain was referred to the end of the penis. I thought there had been an injury to the cord. Examination of the abdomen revealed little of any diagnostic value. The pulse was running about 88 to the minute and was what I considered a very good pulse. I ordered applications such as I considered would have a soothing effect and left the patient for the night. In the morning the aspect of things had changed decidedly. The temperature was 97.6, and the pulse running so rapidly that it was impossible to count the beats. On examination of the site of injury a very distinct emphysematous crackling could be distinguished which, as there had been no break of the integument, could be explained on no other ground than that there had been a rupture of the intestine. An operation was at once advised and consented to. On incising the abdominal wall, the contents of the gut were found free in the abdominal cavity. The large intestine was found to be ruptured. The injured part was removed and the cut edges approximated. The patient stood the first part of the operation very well but sank rapidly toward its completion and expired a few minutes after being taken off the table. The case to my mind is very interesting as showing how little disturbance is manifested in the pulse after such a serious injury as rupture of the intestine and the difficulty of making a diagnosis early while an operation would be advantageous to the patient.

**Doctor Sherman**: The case which has just been reported reminds me of a similar one in my own practice a few years ago. A young boy was kicked by a horse; the accident occurred in the evening but it was some time after when I was called to see him. Although there had been violence enough to cause death in a few minutes after I saw him, careful examination of the abdomen failed to reveal where he had been struck. There was no evidence of any external bruise. An autopsy revealed the fact that death resulted from rupture of the large intestine.

**Doctor Longyear**: It is very instructive to learn that there may be so little disturbance of the pulse after such severe injury as rupture of the intestine. In my own practice a case occurred of rupture of the intestine from a poorly fitted truss. I was called to see the man in the evening and found him walking about the room; he complained of some pain, but the condition of the pulse did not indicate any serious trouble. The next morning he was in a profound state of collapse and died shortly afterward. The autopsy revealed a rupture of the intestine.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, SEPTEMBER, 17, 1894.

### EXHIBITION OF SPECIMENS.

**Doctor Robbins**: I wish to exhibit some post-mortem specimens from a patient who died this morning. In regard to the family history, the mother, ten years ago, was believed to have tuberculosis of the lungs, and was given up to die. She is alive though at the present time, but in poor health. A sister died last week of tubercular hip-joint trouble. The patient, a little boy thirteen years old, had been under my care for a few weeks with complaint of headaches which were thought to have a stomachic origin. Last Saturday evening, that is two nights ago, he was brought into my office complaining of a numbness of the left eye. No paralysis was manifest. The temperature then was 104. The next morning it was 102, but rose again last evening to 105. There was a continual desire to spit, and considerable mucus was discharged from the mouth and nose. There was great difficulty in swallowing, and the child almost strangled on attempting to drink a glass of water. The diagnosis was quite problematical. There was no twitching manifested. It seemed most probably to be a case of tubercular meningitis. At the autopsy this evening all the intestinal organs, especially the kidneys and spleen, were found to be conjested. The membranes of the brain were injected, but the organ itself was markedly anemic. Its surface at one place appeared slightly granular. A tubercle about one inch in diameter was found at the apex of the left lung. The glands of the thorax were found to be enlarged and swollen. The spleen was studded inside and outside with little pearl-like bodies. There was no examination of the urine. The ventricles of the brain were empty.

**Doctor Carstens**: From the history of the case as given I should think that the diagnosis would be acute desquamative nephritis. The peculiar anemic condition of the brain, and the congestion of its membranes, together with the condition of the abdominal organs, would lead to such a diagnosis.

**Doctor Flintermann**: I should consider the case to be one of acute miliary tuberculosis. A microscopical examination would solve the question.

### DISCUSSION OF PAPERS.

**Doctor Hitchcock** read a paper on "Keloids," with exhibition of a specimen from a case interesting also as possessing but one kidney.

**Doctor McGraw**: **Doctor Reynolds** recalls to my mind a somewhat similar case which came to Saint Mary's Hospital many years ago. Here electrolysis was tried but with negative results. A keloid is a recurrent fibrous tumor of the skin. The tumor which sometimes occurs after perforation of the ear is not a true keloid as it is a subdermal growth. Colored people are more prone to connective tissue tumors than to those of any other type. Negresses are very liable to fibroids of the uterus. I have never seen a case of cancer of the uterus or of the breast in these people, and but one or two cases of cancer of the lip.

**Doctor Senkler**: In regard to the itching I recall one case which I saw in a negro, aged fifty-five years, whose back over a considerable area was covered with several keloids. These hung down over the anus and resulted in an intolerable pruritus ani. Notwithstanding the possibility that the growth would return it was removed. Although the keloid grew again the itching disappeared entirely. Surgeons of the south who see a great many of these cases believe that certain ones should be operated upon.

**Doctor Carrier**: I think I saw the same case referred to by **Doctor McGraw**, but at a later period when there was marked interference with the respiration. The so-called true or scar keloid rarely outgrows the limits of the scar. Sometimes a keloid will ulcerate out with no return subsequently. **Hartway** reports good results from electrolysis. **Doctor Hyde** advances the theory that as keloids appear so frequently among the colored they may be of tubercular origin.

**Doctor Dwyer**: The case spoken of by **Doctor Carrier** was not the same as the one referred to by **Doctor McGraw** as I remember having seen both cases at Saint Mary's clinic. In the latter case electrolysis did seem to produce some effect, but it was impossible to get the patient to return at the proper intervals.

**Doctor Sherrill** read a paper on "The Untoward Effects of Electrical Currents."

**Doctor Inglis**: I would simply rise to express my gratitude to the author of the paper. He has given us some ideas as to conditions present, and some ideas as to what we should do when dealing with these cases. Many of them are undoubtedly cases of profound shock.

**Doctor Hitchcock**: In one case which I recall which came under my notice last year it was very difficult to divorce the symptoms of injury from the symptoms of shock. A man fell from an electric light pole and is thought to have sustained a current of six thousand volts. The skull was fractured, and the patient exhibited convulsive movements until coma and death ensued. In my experience I have seldom seen active contortions from fracture of the skull.

**Doctor Mann**: I would like to ask the author of the paper if the man whom he describes did not suffer from hysteria, and I would also like to know if his temperature was taken.

**Doctor Sherrill**: The nervous symptoms manifested were the same as some of those we meet in hysteria. There was no recorded rise of temperature. The burns upon the palms of his hands certainly show that the current passed through him. Nervous symptoms often show themselves after severe injury.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, NOVEMBER 20, 1893.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### DISCUSSION OF PAPERS.

**Doctor Lyster** read a paper on "The Pneumonias."

**Doctor Douglas**: We are now in the "bacillary" stage, looking for specific germs. While not wishing to disparage the labors of the different investigators there still seems to be a lack of oneness on the pneumococcus. It is necessary to follow up these investigations with clinical studies. It seems to have been demonstrated that the sputum from a case of pneumonia will cause, when injected, a pneumonia in rabbits, and that the animals after recovery enjoy immunity at least for some time. It is a question whether the serum from these animals will confer immunity. Experiments go to show that the serum will abort an attack of pneumonia. The result of these experiments may finally terminate as did those of vaccination. The period of crisis may come on later in the course of the disease, when we have extension of the pathological process or complications with pleuritis. As regards the influence of climate and altitude I have no personal knowledge. It is certain that we have more cases in the colder weather; this applies to all affections of the air cells. As regards treatment, digitalis should be used early if used at all, as when the quality of blood has deteriorated its use is productive of harm. A free use of aconite would be more productive of good in the so-called abortive treatment.

**Doctor Carstens**: I have found that large doses of quinine are of use in cutting short an attack of pneumonia. One form of this disease has been left out in the classification, and that is the cerebral form. In some cases, particularly where the upper lobe of the lung is affected, all the symptoms point to the brain when in reality all trouble is in the lung.

**Doctor Jennings**: There is no difficulty, in my opinion, about the etiology of the disease. The question of the susceptibility of the individual arises just as when we are dealing with the pus cocci.. Catarrhal pneumonia subsequent to diphtheria is due to the invasion of the bacillus of diphtheria. Many of the pneumonias incident to fevers are due to the invasion of the lung by the germ causing the original inflammation. There are some cases which start out with nearly all the classic symptoms of pneumonia and yet are entirely well in a few days. I call to mind a case coming on after exposure at the Flats. There was the sharp premonitory chill, temperature of 105, dyspnea, respiration 30 to 40 a minute, diminution of the vesicular murmur, but no crepitant râles; there was, moreover, the expectoration of bloody mucus. The patient recovered almost immediately under the exhibition of antimony. In this case there was evidently a simple pulmonary engorgement.

**Doctor Lyster**: There is a question as to the cause of the rise of temperature. It is considered that the bacillus elaborates a toxine which produces an elevation of the temperature. In the so-called cerebral pneumonia, where the apices of the lung are inflamed, there is more fever, and hence more delirium, particularly in nervous children; the symptoms of cerebral congestion may predominate, and we may even find the bacilli in the brain. The fatal cases are where there is extreme depression.

## EXHIBITION OF SPECIMENS.

**Doctor Tibbals**: I wish to present a specimen for the society to examine. It is an appendix where there has been a perforation. The patient was taken with the ordinary symptoms of appendicitis, fever, pain on pressure at the point of McBurney, and a small tumor could be mapped out. On incision there was found a mass of adhesions and the colon twisted and inflamed, making a wall about the appendix. The appendix was found to be perforated. The patient is doing well.

## REPORTS OF CASES.

**Doctor Sherman**: I wish to report a case which seems singular from the rapidity of the process. The case was one of diphtheria which I have been treating. The case was running the usual course without any particular symptoms. When seen yesterday morning there was a patch of membrane upon the palate. This has now ulcerated through so there is at present an opening as large as a five-cent piece. The membrane had all disappeared upon the left side but has now reappeared, the temperature is ranging from 101 to 102. The nasal passages are clear.

Doctor Douglas: I would like to inquire if the membrane could not have ulcerated through from behind.

Doctor Flintermann announced the death of Doctor James Campbell, a member of the society. Doctor Carstens moved that the chair appoint a committee to draft resolutions in memory of the deceased. Doctors Carstens, Longyear and Jennings were appointed as such committee.

P. M. Hickey, M. D., Secretary.

## STATED MEETING, DECEMBER 4, 1893.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### EXHIBITION OF PATIENTS.

Doctor McGraw: I have here a tumor of the right ovary removed from a woman sixty-seven years of age. The tumor could be felt on examination through the vagina. It was firmly attached by old adhesions to the surrounding tissues. It looked like an old fibroid which had undergone sarcomatous degeneration.

### DISCUSSION OF PAPERS.

Doctor Douglas presented a paper on "Infant Feeding," which was read by Doctor Don M. Campbell.

Doctor Jennings: On the relative composition of human and cow's milk, the capacity of the child's stomach, and the quality of the cow's milk revolves the question of infant feeding. The doctor has certainly gone over the question very carefully. All children should have a wet nurse. The next best food is the milk of the cow. The mixture of Roach approximates most closely to the mother's milk. In regard to the source of supply the most careful precaution should be taken, as it so intimately concerns the health of the child. Our milk supply may be all right in the winter months, but when warm weather begins it may produce distress, and we are driven to the use of condensed milk as one of the patent foods. No one food was fitted for a child under six months. The milk laboratories in Boston, where milk is dispensed according to the prescriptions of physicians, are a very valuable thing. If the milk supply can be controlled sterilization is of doubtful utility. If sterilization is necessary it should be done at a temperature of 165° Fahrenheit. Sterilization at 212 is injurious, since it produces changes in the fat, destroying the fineness of the emulsion and changing the casein to an indigestible albumen. We should drop the use of patented foods except during the summer months. Condensed milk is often condemned, but it is nevertheless of service during the summer months. In regard to the use of cereals they should not be given before there is secretion of the pancreatic fluid, which does not take place before the sixth or seventh month. Bad feeding of children is often due to the physician's neglect. Tables in regard to the quantity to be taken in twenty-four hours, and the proportions of the various constituents should be memorized by the physician.

**Doctor Knill**: In the treatment of the diseases of children we should look principally to the food and not to medicine. When we consider how much patent foods are sold it does not look well for the profession. Even when the mother nurses the child, there may be trouble arising either from too frequent nursing or from delayed nursing. In regard to the mother's diet it should be that of good normal food. All prepared foods should have as a model the mother's milk.

**Doctor Douglas**: There is no doubt that certain foods taken by the mother affects the child through the milk. There is also a certain dependence on the condition of the mother's digestion. P. M. Hickey, M. D., Secretary.

## STATED MEETING, DECEMBER 18, 1893.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### REPORTS OF CASES.

**Doctor Robbins** related the history of a case of femoral hernia in a man upon whom he had operated for the relief of strangulation a few days previous. The doctor spoke of the rarity of femoral hernia in a male.

**Doctor Carstens** related the history of a similar case, but remarked that it was the only one which he had ever seen.

### EXHIBITION OF INSTRUMENT.

**Doctor Robbins** exhibited a trocar canula for suprapubic tapping of the bladder where it was desirable to leave the canula in situ for several days for the purpose of drainage.

**Doctor Walker** considered that such an instrument might be serviceable in a certain class of cases where it was impracticable to do a cystotomy.

### DISCUSSION OF PAPERS.

**Doctor Robbins** read a paper on " Cystitis."

**Doctor Sherrill**: The paper is not merely a compilation from the various authorities, but an interesting statement of facts deduced from the doctor's own cases. The anatomy of the bladder is interesting as showing why failures to cure cystitis often occur. There may be normal diverticula, and if these become infected the case obstinately resists treatment. The great prominence of microbes in the causation of these troubles has been much discussed of late; it is now claimed that the gonococcus does cause, directly, the cystitis; at any rate it may create a soil favorable for inflammation of the bladder. Injection of irritating substances into the rectum may bring about a cystitis; the bacillus coli comminis may pass from the rectum through the tissues into the bladder and there set up an inflammation. We may have a cystitis after the injection of an hematocele or a varicocele with carbolic acid. The reaction of the urine early in the history of a case of cystitis is acid, but as the case progresses the acid reaction disappears, and the urine becomes alkaline with depositions of crystals. I had a case sometime ago of a boy twelve years old who passed, by the urethra, a peculiar collection of cysts filled with a jelly-like fluid; there was a history of previous retention of urine attended with pain. The case illustrates how varying are the causes of a cystitis, as the boy developed a mild inflammation of the bladder with no subsequent recurrence of the trouble.

**Doctor Metcalf**: Injections of irritating fluids may bring about a cystitis through reflex irritation. After operations on the rectum I am in the habit of passing a catheter.

**Doctor E. B. Smith**: I think that the lack of sensitiveness of the bladder in some cases is a point deserving to be touched upon. Stone in the bladder does not always cause the irritation which we might suppose that it would. The eating of certain substances may cause a cystitis. I do not think that any satisfactory classification of the varieties of inflammation of the bladder has yet been made. It would seem best to make use of the cystoscope when possible, in order to arrive at a correct diagnosis.

**Doctor H. O. Walker**: In these cases of inflammation there must necessarily be a microbe of some sort; there must be an absorption through an abraded surface. The question whether we can have a gonorrheal cystitis is still a clinical one. In cases of abdominal section where, after operation, there has been frequent catheterization the surgeon often has a subsequent cystitis to treat· This comes from infection from a dirty catheter. I have not had such good results from washing out of the bladder as some authors have claimed to receive. If we can render the urine antiseptic it will answer all purposes of irrigation. In cases of tuberculosis of the bladder the injection of iodoform with its retention might form the nucleus for a calculus. Tubercular cystitis is a most troublesome thing to treat; oftentimes a cystotomy with scraping of the walls of the bladder is advantageous.

**Doctor Hitchcock**: I have always considered the bladder as a sensitive organ. The infliction of pain is usually unnecessary in washing out of the bladder. The posterior urethra is to be considered a portion of the bladder.

**Doctor Carstens**: Bacteria can be introduced into the bladder from without from a variety of sources. I do not think that the bacillus coli communis travels through the membrane from the rectum to the bladder. I would rather consider that the bacilli exist at times in the blood in certain pathological conditions, and that the bacilli might be introduced into the bladder from the circulatory apparatus. Gonorrheal infection of the seminal ducts may cause a reinfection of the urinary tract, even after thorough washing out of the bladder. We cannot kill all the germs in these different cases. We often fail of a cure because of an improper diagnosis; in one case which was thought to be a cystitis, and which remained obstinate as regards treatment, it was afterward found that the real cause of the trouble was a suppurating kidney. The whole question as to the diagnosis and etiology of cystitis is a difficult one. A rubber catheter cannot be made perfectly aseptic. I am in the habit now, in women, after laparotomy, of using glass catheters which can be kept perfectly clean by boiling and immersing in an antiseptic fluid.

**Doctor Walker**: I know of many cases where there was disease of the kidney, and where the pus had been poured out into the bladder, yet where a solution of continuity was necessary for the setting up of an inflammation.

**Doctor Hitchock**: I would like to inquire if the use or injection of irritating fluids might not cause a solution of continuity.

**Doctor Flintermann**: I remember one case of gonorrhea occurring in a young man where a prostatic abscess followed, which was opened. The patient died of peritonitis. The autopsy revealed the fact that the abscess had ulcerated through into the peritoneal cavity. The gonococci may remain for a long time inert, and yet be in a condition to bring about reinfection.

P. M. Hickey, M. D., Secretary.

# EDITORIAL ARTICLES.

## THE PRIMITIVE INSTINCTS OF THE MODERN CHILD.

Now that the doctrine of evolution has been placed beyond the realm of mere hypothesis, the inductive reasoning whereby its principles were established may yield somewhat to the use of deductive method; attempt to ascertain the nature of things being made by generalizations from universal to particular. The field of pathology still holds treasures that will be yielded to the investigator by this method, and how much can be gathered in biological fields is indicated by the interesting article in *The North American Review*, for November, by Doctor Louis Robinson upon the primitive child.

Two most striking characteristics of the newborn child are its prehensile fingers and its fat, plump rotundity of body. The prehensile fingers betray a manifest simian trait, an index of pithecoid ancestry. How comes the newborn babe to be the fat, plump, creature, whose mother exhibits with pride, its elephantine limbs? Young monkeys are thin and slight, and their mothers convey them easily from branch to branch. The fatness of babies is a distinctly human characteristic. The use of adipose is that of providing a resource in time of need. Fat animals usually hibernate. Scarcity of food, was a frequent complication of the life of primitive man. By becoming fat in prosperous times the body would be able to survive "the hard times." In the struggle for existence fat babies would survive and fat babyhood would inherit inevitable tendencies in bioplasm favorable to the reappearance of a fat type. The fat baby is indeed the melancholy monument of untold suffering, struggle and agony, whereby the human race has secured its survival.

Another typical habit of the little child is that of picking at small objects and putting them into its mouth—a faint echo of the day when the parental hunters scouring the country for food left the child to make gastronomical experiments among the debris on the floor of the cave, or among the caterpillars in the grass.

The majority of babies are pleasing to the eye. They have a style of beauty distinctly their own, decidedly superior to that of young monkeys. Infantile beauty is a post-arborean trait and required special selective agencies for its creation. Yet it is easily explained. The ugly duckling never gets a fair chance. The prettiest children are the most petted, and in a state of society in which, during disastrous times, many would be sacrificed, the prettiest would stand the best chance of surviving—would be the ones most constantly saved by the mother.

Another baby instinct that loudly demands recognition, which is so universal as to imply its deeply-rooted origin, is the perpetual squalling and screeching of infants. This instinct, which makes the night a period of matrimonial penance, shows an expenditure of energy which nature never permits without purpose. The universal distribution of this infantile habit shows that it was certainly an effective means of securing the attainment of the primitive infant's desires. When parents neglected their babies they squalled and those most persistent in their objurgations undoubtedly thrived the best, by bringing their progenitors to that state of servile obedience in which contemporary parenthood still lingers.

Children almost invariably exhibit fear of strangers. This is another ancestral trait. In days when merciless war was waged between tribes, the stranger was synonymous with the enemy. The dread of the stranger would become instinctive, and the peculiarity transmitted to the race.

The fear of being alone in the dark is a common failing of little children. Night is not less harmless than day to the modern infant. The fear of darkness is supremely unreasonable. Instinct, however, stronger than reason, proclaims itself through babes and sucklings. In ancient days when the iguanodon might be prowling around the camp the imagination of the child might most reasonably have invested objects dimly seen in the dark with gruesome and dangerous attributes. The fear children manifest for the dark is an indefinite one, suggesting a vague apprehension of danger rather than actual risk. It is a short-lived characteristic, as young men and women usually have no dread of going out at night.

Perhaps the most characteristic trait of childhood is the dread of wild animals. There is probably no child whose apprehension cannot be aroused by a reference to bears. DOCTOR ROBINSON finds he can frighten his children most effectually by appearing to them in a shaggy coat and acting the animal, and this even when the deception is practiced in full view of them. There is little doubt that children retain an inherent dread of animals, just as adult man has an inherent terror of the snake. The germs of such instinct were doubtless amply implanted in days when the tiger and bear were formidable enemies of our race.

These and many not enumerated, are traits distinctly characteristic of child-life. They testify to impressions indelibly engraved upon bioplasm in the long era of savagery, a period longer than that of which we have any conception, founded upon objective analysis. They are voices of a far distant past, penetrating the innermost recesses of consciousness, proclaiming the virulence of a conflict that has left its undying record upon man's nature and testifying to an ancestry man, even yet, has barely outlived.

## EDITORIAL BREVITIES.

### OLIVER WENDELL HOLMES.

A PANG of regret went round the globe when the death was announced of th genial and delightful HOLMES. HOLMES was probably the best known livin American. Great as were his achievements in the profession of letters, it mu always be remembered his success was not less as a physician. He forcibl exemplified that devotion to medicine is not inconsistent with wide cultur and he always insisted that the greater the range of a man's knowledge th better physician he is likely to be. DOCTOR HOLMES' most important contribution to medical science was one anticipating, in principle, the discoveries of SEMMELWEIS. In 1843 he wrote a paper entitled "Puerperal Fever a Private Pestilence." In this essay he formulated the doctrine that puerperal fever is a communicable disease. He advised all those making autopsies never to attend puerperal cases. Those attending, erysipelas were to be excluded from the lying-in room. On a case or two of puerperal fever occurring in his practice the physician was advised to relinquish obstetrical practice for a month. HOLMES was therefore a pioneer in the field of antiseptic midwifery. His contention that puerperal fever was contagious exposed him to all sorts of ridicule, but his ideas ultimately prevailed. This alone should make his repute in medicine as imperishable as it undoubtedly is in letters. It may be questioned by what HOLMES will be best remembered fifty years hence. This may not be as a novelist or essayist, more probably as a lyric poet or a physician.

## THE NATURE OF IMMUNITY.

IN a lecture delivered before the International Congress of Hygiene, PROFESSOR BUCHNER, of Munich, summarized his conclusions in regard to immunity and immunization. Natural and acquired immunity he considered differed in principle. The natural power of resistance is due to the bactericidal influence of the alexines, certain dissolved constituents of the organism, and to a congenital power of resistance in the tissues and cells of the body. The leucocytes play an important part in this natural protection, not through phagocytosis, but by means of dissolved substances they secrete. The immunity artificially acquired, or the immunity acquired in later life is due to the presence of modified bacterial products—the antitoxines. The action of the antitoxines is not directly upon bacterial products, but by modifying the organism these enable it to resist specific poisons. This is essentially the doctrine most prevalent.

## PATHOLOGY IN FICTION.

THE resources of the modern writer of fiction are drawn largely from pathology. Not only does ZOLA deal with alcoholism, but in DOCTOR PASCAL with various inherited nervous diseases. MRS. HARRADEN, in her somewhat hysterical romance, "Ships that Pass in the Night," makes a good deal out of pulmonary phthisis. MISS GRAND appears to favor venereal diseases as a basis for unusual sociological deductions. IBSEN goes as far as inherited syphilis in his strange drama, "Ghosts." The delightful TRILBY does some extraordinary and impossible vocal gymnastics while in a state of hypnotism. Truly, fiction is much indebted to modern medicine.

## DOCTOR HENRY F. LYSTER.

THE death of DOCTOR LYSTER will be regarded as not less than a calamity. Few physicians have had a more enviable record. A gallant soldier, a polished scholar, and a beloved physician. He possessed a kind and gentle influence, as health-giving as his medical skill. The important positions he held as a teacher in the University of Michigan and the Detroit College of Medicine, endeared him to his younger colleagues. Always in touch with the true interests of his profession, he exercised an influence which will make his loss irreparable. His life was irreproachable, and if "to live in hearts we leave behind is not to die," the lessons to be derived therefrom will not be forgotten.

## MEDICAL NEWS.

### POWER OF THE CORONER IN POST-MORTEMS.

THE Young case recently decided in Baltimore, not only establishes the right of the coroner in cases where the conditions suggest autopsies, but likewise scores another victory for the physician. The suit was instituted by Barbara Young *versus* The College of Physicians and Surgeons, Doctors N. G. Keirle and Edwin Geer. The plaintiff's husband followed the vocation of breaking on a railroad, and in an accident sustained the crushing of his right leg immediately below the knee. The patient was taken to the City Hospital and suitable medical treatment prescribed, but persistent efforts to overcome the great shock were futile and death resulted after thirty-six hours, amputation not having been performed. At this stage in the proceedings the coroner was requested to appear upon the scene. One of the defendants, Doctor Geer, officiates in the capacity of this functionary, and is also connected with the City Hospital as superintendent of the dispensary. The City Hospital is conducted under the auspices of the College of Physicians and Surgeons, hence this school's involvement in the suit. Doctor Keirle, the other defendant, is connected with the college as professor of pathology. He is likewise city post-mortem physician, and the coroner requested him to perform an autopsy and render a report. Two months after the interment the plaintiff had the remains exhumed, and finding that a post-mortem examination had been made, without her consent, instituted suit for $25,000, claiming that the coroner exceeded his authority in ordering a post-mortem; that the post-mortem physician had no right to obey an illegal order; that the body of the deceased had been wantonly mutilated, the brain robbed, the skull stuffed with oakum, the incisions sewed up with red twine; and that the action of the coroner and physician was due to their connection with the college, upon whose property the nefarious deed was perpetrated. The court ruled that the college could not be held liable for damages to which it was not a party; that the coroner acted in a judicial capacity; and that the post-mortem physician could only be held liable for such damages as might accrue from exceeding the requirements of a legal post-mortem by indulging in unnecessary mutilation of the body. The jury returned a verdict in favor of all the defendants.

### THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THE fourth annual meeting of this association convened in New York City on September 25, under the presidency of Doctor William J. Herdman, of Ann Arbor, Michigan. In his address the presiding officer defined the function of this body to be the improvement and standardization of electrical apparatus, the improvement of electrical nomenclature, and the fixing of a uniform standard of electrical measurements. Membership is limited to one hundred. The present active force consists of seventy, besides which there is an honorary list of twenty, five of whom are foreigners. At the late meeting Doctor David Inglis, of Detroit, was elected to honorary membership, as was also Doctor John W Langley, formerly professor of chemistry in the University of Michigan, but now connected with the Case School of Mines, at Cleveland, Ohio; Doctor Bergonie, editor of *The Electro-Therapeutic Journal;* and Doctor d'Arsondal, of Paris. A goodly number of papers were read and discussed, among them being "Some Therapeutics of the Incandescent Electric Light," and the "Physiological and Therapeutic Effects of the Sinusoidal Current," by Doctor J. H. Kellogg, of Battle Creek, and a treatise "On Constant Current Generators and Controllers," by Doctor W. J. Herdman, of Ann Arbor. Officers for the ensuing year were elected as follows: President, Doctor A. Lapham Smith, of Montreal; vice-presidents, Doctors J. H. Kellogg, of Battle Creek, and C. R. Dickson, of Toronto; secretary, Doctor Emil Heuel, of New York City; treasurer, Doctor R. J. Nunn, of Savannah, Georgia. The next meeting will be held in Toronto, Ontario.

## A MINERAL DIET.

Food of the hard-tack variety seems to be dispensed at the County Asylum, in Lancaster, Pennsylvania. A case has recently been reported which involved laparotomy on a maniac whose incoherent statements indicated that this diet had been too freely indulged in. On section of the stomach it was found that one hundred and ninety-two nails had repudiated the digestive action of the vital juices, and were cosily ensconced on a mattress of matted hair, beneath a covering of rust. The nails consisted of three varieties—sharp, bent and twisted, their lengths averaging two and one-half inches, although some were three inches and over. The mattress was nearly two inches in length, and it would seem that nature contemplated improvising a bed-spring as an invoice of brass wire was found on the spot. Other articles in the store-house were several small pieces of stick, half a screw nail, a carpet-tack, and a button. The cargo weighed one pound nine and one-half ounces. Notwithstanding the decision which committed this individual to an asylum, the operation demonstrated that he was not so foolish after all as he still had one button left.

## THE AMERICAN PUBLIC HEALTH ASSOCIATION.

The twenty-second annual meeting of this organization was held in Montreal on September 25 to 28 inclusive. The president complimented the members on the result of their labors in behalf of sanitary science, and urged that renewed effort be directed toward creating departments of public health in governmental cabinets. The deliberations embraced the consideration of many important subjects. The antitoxine treatment was extolled for diphtheria. Vaccination still reigns supreme as a preventive of variola, and the physician is admonished to scarify the child "during the first year of its life, and again at sixteen, or better, to the point of saturation during infancy." Phthisis received attention in a paper entitled "The Climatic Segregation of Consumptives," by Doctor Henry Sewall, formerly professor of physiology in the University of Michigan, but now of Denver. The author suggested the establishment of a series of cottage sanitoria at favorable points in Colorado, and the removal of consumptives thereto. Doctor Paul Paquin, formerly of Battle Creek, discussed the question from a matrimonial stand-point, and thought that science should exert its influence to prevent the propagation of the species by those infected with the disease. Some notice was taken of yellow fever, school hygiene, sanitary plumbing, disposal of garbage, and the climate of Canada; but the topics which elicited peculiar favor were water, milk, and alcohol. Bacteriology figured conspicuously in the proceedings, and although no germicidal theory obtained respecting the latter fluid, nevertheless there is a probability that some species of microbe likewise infects this intoxicating spirit, the tenor of the discussion forcibly illustrating that after excessive imbibition the victim is inclined to bacilli. Doctor T. D. Crothers would have inebriates colonized and subjected to military care and treatment. Milk should be kept non-infective by special legislation directed toward tuberculous cattle. Water was commended to the coöperative investigation of state and local boards of health. The following officers were elected for the ensuing year: President, Doctor William Bailey, of Louisville, Kentucky; vice-presidents, Doctors G. P. Conn, of Concord, New Hampshire, and G. Mendizabal, of Orizaba, Mexico; secretary, Doctor Irving A. Watson, of Concord, New Hampshire; treasurer, Doctor Henry D. Holton, of Brattleboro, Vermont. The next meeting will be held at Denver, the time to be announced by the executive committee.

## DEATH OF DOCTOR OLIVER WENDELL HOLMES.

THE death of this distinguished physician, teacher, author, and poet occurred on Sunday, October 7, at 1:30 P. M., while chatting in an easy chair in his study. The doctor was born on August 29, 1809, and received his education in Cambridge schools, in Phillips' Academy, and in Harvard University, graduating from the latter in 1829. He spent a year delving in legal lore, but in 1830 he abandoned law and began the study of medicine, procuring his medical degree at Harvard in 1835. During his medical course he obtained valuable clinical instruction at the Paris hospitals, in which city he sojourned two years. In 1838 he was elected professor of anatomy and physiology in Dartmouth College, but subsequently resigned to engage in practice in Boston. In 1847 he was called to the chair of anatomy in the Harvard Medical School, a position which he occupied for thirty-five years, delivering his farewell address on November 28, 1882. In 1837 he edited, conjointly with Professor Jacob Bigelow, Marshall Hall's "Principles of the Theory and Practice of Medicine." He was the author of medical papers galore. "Indigenous Intermittent Fever in New England" captured a Boylston prize in 1836, and "The Nature and Treatment of Neuralgia," and "The Utility and Importance of Direct Exploration in Medical Science," obtained both the Boylston prizes in 1837. "The Contagiousness of Puerperal Fever," read before the Boston Society for Medical Improvement in 1842, was regarded his greatest essay. Doctor Holmes was among the first members of the American Medical Association, and during his professional career contributed largely to medical periodical literature. He was a graceful and vigorous writer, and much of the work through which he achieved fame was accomplished before relinquishing professorship or practice. Many volumes in prose and poetry will long be revered as the sentiment of our American Holmes.

## RETURN OF DOCTOR COLLINS H. JOHNSTON.

DOCTOR JOHNSTON, of Grand Rapids, graduate of the University of Michigan —literary department, 1881, medical, 1883, who has been pursuing special study in Europe during the past year, has returned home, and again entered upon the practice of his profession. While we rejoice over the doctor's transition to familiar scenes and faces, we regret that the last of the series of his excellent letters was published in The Physician and Surgeon for September. They have been highly complimented on all sides, a contemporary saying: "These alone are worth the subscription price of that journal." Doctor Johnston was away from Grand Rapids just thirteen months. On leaving New York in September, 1893, the party (including wife and two children) went to Antwerp, Belgium, visited several southern German cities, traveled up the Rhine, and settled in Berlin, where the doctor took private courses with Martin, Landau, Veit, Winter, and Rumpf in gynecology; Kossman, Ruge, and Benda in pathology and microscopy; Boas, Litten, and Krönig in diseases of the stomach and internal medicine; Günther in bacteriology; Klein and Ehrenhaus in children's diseases. In Dresden he was Leopold's assistant two months in obstetrics and gynecology, and studied children's diseases with Schaefer. In Prague he studied obstetrics and gynecology with Pawlik and Rosthorn, and pediatry with Czerny and Epstein. In Leipsic he was Sänger's assistant two months in gynecology, and studied obstetrics and gynecology with Zweifel and Döderlein, besides taking a course in pediatry at the Leipsic Kinder Krankenhaus. Returning to America he spent six weeks at Johns Hopkins and two weeks in New York.

## DEATH OF DOCTOR HENRY F. LYSTER.

The demise of this well-known physician and teacher recently occurred on a Michigan Central train near Niles. The doctor had been in ill health several weeks. Medicine failing to bring the desired relief he resolved on a change of climate and was bound for Santa Fé, New Mexico, via Chicago, when, at the point indicated, he suddenly fainted, and very soon afterward expired. The deceased was fifty-eight years of age, and a resident of Detroit since 1846, whither he came with his parents from Brooklyn, Michigan. He was a graduate of both the literary and medical departments of the University of Michigan, and was twice honored by election to professorship in the latter department of this institution, filling the chair of Surgery on the first occasion and that of Practice on the second. He began the practice of medicine in Detroit, but at the outbreak of the civil war he entered the service as assistant surgeon of the Second Michigan Infantry, on April 25, 1861, and was elevated to the surgeoncy of the Fifth Infantry on July 15, 1862. On May 5, 1864, he was wounded at the battle of the Wilderness, and retired from service on the 28th of the same month. Returning to Detroit he soon established a successful and lucrative practice. He was one of the founders of the Michigan College of Medicine, and president of this school until its consolidation with the Detroit College of Medicine, when he became a member of the new faculty, which position he retained until retired by death. Doctor Lyster leaves a widow and five children—two daughters and three sons, one of the latter being house physician at Harper Hospital.

## NUCLEIN THERAPY.

The attention of our readers is directed to the very excellent article entitled "Nucleins—A Clinical Study," which is published in another part of this number. It is from the pen of that acknowledged therapeutist, Doctor John Aulde, and presents an exhaustive history of the subject. After defining nuclein, and enumerating the investigators who have experimented with this therapeutic agent during the past sixty-three years, beginning with Braconnot in 1831, and closing with Germain Sée in 1893, he proceeds to discourse upon its source and preparation, physiological properties, therapeutic range, clinical indications and mode of administration. The article will be found interesting and instructive.

## MINOR INTELLIGENCE.

An Anti-Corset League has been organized in Liverpool.

A private ambulance service has been established in New York City.

Santa Cruz will have a million-dollar hospital for the deaf, dumb, and blind.

The military hospital at Seoul is in the hands of Japanese trained female nurses.

Nicaragua is infected, along the coast region, with a malignant type of yellow fever.

Hereafter pneumatic tires will be employed on ambulance wheels to prevent jarring and jolting.

A training school for nurses is contemplated in connection with Saint Mary's Hospital, Detroit.

A bacteriological laboratory has been established by the board of health of the Province of Quebec.

Governeur Hospital, of New York, is to have an addition erected at a cost of two hundred thousand dollars.

The annual meeting of the New York State Association of Railway Surgeons will be held in New York City on November 15.

The number of medical journals in the United States has reached two hundred and twenty-one—just two hundred too many.

Newspaper intelligence places the number of students pursuing medical courses in Philadelphia at three thousand two hundred.

The Medical and Chirurgical Faculty of Maryland will convene in semi-annual session at Cumberland, on November 21 and 22.

The Anti-Opiate Society recently established in New York City contemplates rescuing humanity from the power of insidious narcotics.

The Craig epileptic colony will be opened for actual work next spring. Six hundred unfortunates are eagerly waiting to patronize the colony.

Vienna hospitals have been enriched two hundred and fifty thousand dollars by Baron Albert de Rothschild, the gift to be called the "Bettina Fund."

Doctor Hiram Corson, of Montgomery county, Pennsylvania, aged ninety years this month, is said to be the oldest practicing physician in the United States.

Professor George Sloane, of Chicago, has subsisted on morphine and mineral water for forty-five days. The fast was instituted for the relief of gastralgia.

Chicago has thirty-eight hospitals, the aggregate capacity of which is three thousand four hundred and nine beds. Twenty-two of these institutions are general and sixteen are special.

Doctor Oertel, assistant superintendent of the hygienic institute at Hamburg, recently succumbed to cholera. For the purpose of experimentation he ingested some infected water with the result of producing the disease.

A STATE Medical and Surgical Association, with a membership of one hundred and twenty, has been organized at Jackson, Mississippi. Doctor J. H. Lucas, of Greenville, is temporary president.

REVEREND DOCTOR J. M. BUCKLEY, editor of *The Christian Advocate*, 150 Fifth avenue, New York City, is investigating Keeleyism, and solicits physicians and ministers for data relative thereto.

THE Chicago Board of Health now supplies culture tubes and makes microscopic examinations in cases of suspected diphtheria. This practice has been in vogue in New York City for some time.

THE Cleveland Medical Society is not two years old but has already taken steps to erect a permanent home and establish a library. Has the question of erecting a medical building in Detroit become a defunct issue?

THERE are three hundred and forty-four active members in the Homeopathic Medical Society, of Pennsylvania. The local societies, eighteen in number, contain an aggregate membership of fifteen hundred and fifty.

IT is stated that there are over one hundred thousand cyclists in Paris. A majority of the prominent doctors prescribe the exercise of cycling for their patients, and manifest faith in the invigorating power of the wheel by electing a course for themselves.

THE *Leucocyte* is the last born of the college journals. It is the organ of the Detroit College of Medicine. It is full of college chat, and will be much appreciated by the students. It may be predicted that it will travel the road to success with more than ameboid movement.

THERE are thirty-eight medical journals published in Russia. There is one individual who reads them all through, not because of the interest or instruction gleaned therefrom, but because obligation demands. He is censor of the press, and plods through these publications in search of utterances against the government.

STATISTICS show that the average life of the New Orleans negro is 24.2 years. This condition is appalling, but will not be wondered at when it is known that the mortality is attributable to lack of medical attention, not more than one-half the negroes being attended by a physician. The south presents an inviting field for colored doctors.

THE eclectics have declared for higher medical education. An association of medical colleges has been formed which prescribes a four years' course of study, beginning with the class of 1899, the curriculum to extend over four sessions of six months each in different calendar years, or three sessions of eight months each. Attendance on eighty per cent. of all lectures is specified as a requirement for graduation.

THE board of supervisors of Westchester county, New York, has reduced the fee for examining lunatics, and the physicians of Mount Vernon, the county seat, are on a strike. The amount heretofore paid for each examination has been ten dollars, but under the new régime only five dollars will be allowed. The physicians decline to render service, and pending settlement two lunatics are confined in the county jail awaiting the verdict of a medical examiner.

Doctor Albert B. Miles, lately deceased at New Orleans, bequeathed $10,000 to each of the following institutions in that city: Medical Department of Tulane University of Louisiana; Hotel Dieu; and Charity Hospital. The doctor was house surgeon of the latter.

A pedometer was brought into requisition by a Swiss physician for the purpose of recording the number of steps taken in a year. The daily average was twenty-six thousand seven hundred and forty, making the aggregate number for the year, nine million seven hundred and sixty thousand nine hundred. This is equivalent to fifteen miles a day.

The library of the French Academy of Medicine contains one hundred and forty-seven thousand four hundred and five volumes, including pamphlets. This large collection in chiefly the growth of generous benefaction. A feature of the study is six thousand engravings and portraits of medical men nearly all of which have been contributed by a country doctor.

The new building regulation which became effective in Washington, District of Columbia, on September 1, restricts the height of buildings on business streets to one hundred and ten feet, and on residence streets to ninety feet. This innovation was prompted by a desire for sunlight on the part of occupants of buildings that were overshadowed by adjacent sky-scrapers.

The Detroit Medical and Library Association.—The annual meeting was held on Monday, October 1. The reports of the treasurer and secretary showed the society to be in a healthy condition financially and otherwise. The following were elected to office for the ensuing year: President, Doctor Eugene Smith; treasurer, Doctor A. P. Biddle; secretary, Doctor Luther S. Harvey; librarian, Doctor J. V. Becelaere. Doctor John Flintermann, the retiring president, gave a reception in honor of the association which was largely attended and enjoyed by his guests.

The Schimmel non-repeating prescription blank is a new candidate for professional favor. Its inventor, G. R. Schimmel, claims for this novelty protection to the prescriber from repeating or otherwise making use of the prescription except for the particular invalid and instance indicated by the prescriber. When dispensed and the patient's stub detached, the original is destroyed so far as a complete prescription is concerned. The formula is regarded the private property of the prescriber, and must be returned by the dispenser after convenient possession. This procedure renders a repetition impossible, and the right of the pharmacist to give a copy is denied.

An analysis has recently been made of the place of residence of the physicians who matriculate at the New York Post-Graduate Medical School. The habitations comprised four divisions according to size, places having a population of over 150,000 being designated large cities; those over 25,000, medium cities; those over 10,000, small cities; the final class consisting of towns and villages. The result indicates that the major number of attendants are recruited from the medium-sized cities and large towns, the former furnishing one thousand one hundred and four, and the latter six hundred and ninety-five, among a grand total of three thousand eight hundred and twenty-four matriculates, the number from the large cities being proportionately small.

The Detroit Gynecological Society.—The annual meeting of this society was held on October 3, at the Hotel Cadillac. The proceedings for the most part consisted of a very sumptuous banquet at which the retiring president, Doctor C. A. Devendorf, presided, displaying his usual witty and brilliant *esprit.* The members fortunately present all contributed remarks of more or less scientific interest. Doctor E. T. Tappey, is the new presiding officer, and will doubtless admirably fulfill, in due season, the essential duties of his office.

The *North American Medical Review* is a recent candidate for professional favor. It emanates from Kansas City, is of the progressive type, and will undoubtedly succeed. The editor, Doctor Boteler, passes judgment, on our publication in the following sentence: "The Physician and Surgeon of Detroit, as a compendium of foreign and domestic medical news in a condensed form, stands out *par excellence* as an object for emulation by all magazine writers." Our contemporary also reproduces our recent editorial on "The Prevention of Insanity" giving due credit to its source. We are pleased to note that this colaborator has started right in the matter of making selections by "giving credit to whom credit is due." In perusing our exchanges each month we so frequently come in contact with extracts from this journal which are functionalizing as original material that we are forced to believe the sea of medical journalism infested with literary pirates.

The Grand Rapids Medical and Library Association has been recently organized in Grand Rapids, Michigan. The purpose of the association is the formation of a reference library upon medicine and allied sciences. The new organization starts out with a membership of about fifty, composed not alone of physicians, but dentists and pharmacists as well. One of the features of the association will be the admission of non-residents to membership, whereby for a small annual fee, physicians outside of the city may avail themselves of the advantages of the library. A competent librarian will be secured and the most approved methods of cataloguing and indexing will be made use of. Books and journals are being liberally donated by those interested in the project, and the success of the enterprise is assured. The following officers have been elected: President, Doctor G. K. Johnson; vice-president, Doctor S. G. Milner; treasurer, Doctor W. A. Dorland; secretary, Doctor Reuben Peterson.

# RECENT PUBLICATIONS.

## REVIEWS.

### SYLLABUS OF LECTURES ON HUMAN EMBRYOLOGY.*

In this useful manual Doctor Manton has outlined the salient facts in human embryology in a manner suitable for the purposes of students who may be attending lectures upon the subject. The scope of the work is comprehensive as it covers not only the entire fields of general and special development, but a consideration of the organs of generation, and of the mature organism at birth.

The difficulty attending the teaching of embryology arises largely from the necessity of realizing in sequence the stages of a process that is continued. This is largely overcome in the present instance by the admirable series of outline drawings which afford a panoramic illustration of the developmental stages. The text is extremely lucidly written, and after the derivation of each word is given a crisp definition crystalizes the thought upon the subject matter to be described. A copious glossary further enhances the work.

The volume is one which will afford universal satisfaction, and lessen the labors of teacher and student. We congratulate the author upon the undoubted success with which his literary venture will be rewarded.

*An Introduction to the Study of Obstetrics and Gynecology. For Medical Students and Practitioners, with a Glossary of Embryological Terms. By Walter Porter Manton, M. D., Professor of Clinical Gynecology and Lecturer on Obstetrics in the Detroit College of Medicine; Fellow of the Royal Microscopical Society, of the British Zoölogical Society, American Microscopical Society, et cetera. Illustrated with seventy outline drawings and photo-engravings. 12mo. Cloth, 126 pages, interleaved for adding notes and other illustrations, $1.25 net. Philadelphia: The F. A. Davis Company, Publishers, 1914 and 1916 Cherry street.

## YOUNG'S ORTHOPEDIC SURGERY.*

THE publication of a new manual of orthopedic surgery is always an event of interest to surgeons. Doctor Young's latest contribution to this branch of surgical science traverses the ground pretty completely. The possible treatment to be instituted for the correction of deformities is discussed very fully, and the reader is much assisted by the numerous excellent engravings which illustrate the text. The mechanical apparatus recommended for use is well described and usually faithfully portrayed. While nothing strikingly novel or original is presented by the author, a wise and conservative spirit animates his clinical teachings. The volume will prove exceptionally useful to the student and practicing surgeon.

*A Manual of Orthopedic Surgery for Students and Practitioners. By James K. Young, M. D., Instructor in Orthopedic Surgery, University of Pennsylvania, Philadelphia. In one octavo volume of 446 pages, with 285 illustrations. Cloth, $4.00; leather, $5.00. Philadelphia: Lea Brothers & Company, 1894.

## MENTAL MEDICINE.*

THIS manual, the author tells us, is the first instance of a work treating of mental alienation written by an alienist, translated by an alienist, and under the direction of an alienist printed and bound by the insane. It may not be superfluous, under these circumstances, to remark that the printing and binding appear as excellent in their way as the rest of the work.

Doctor Régis has written a singularly lucid account of mental disease. His style, exhibiting the elasticity of the French writer, reflects the pellucid thought of the many French investigators who have done so much for mental science.

The manual before us begins with brief historical résumé of the history of insanity. The next section deals with general pathology, and a consideration of the functional and constitutional elements entering into insanity. This chapter is particularly full of matter of an instructive nature. The classification of the insanities is next dealt with. The classification of Magnan, Hack Tuke, and

Kraft-Ebing, are rejected for the author's own method, the essential principle of which consists in dividing the insanities into two groups, generalized or symptomatic insanities and constitutional alienations, the latter group being subdivided into degeneracies of evolution and degeneracies of involution. Following these exceedingly scientific classifications are chapters dealing with the special pathology of the various stages of mental disorder. Other sections of the work deal with therapeutics, medico-legal deontology, medico-legal practice, and other matters of interest to the alienist. An excellent index completes the work.

Many features call for special commendation. The short crisp definitions; the scientific principles of classification adopted; the breadth of view exhibited in the consideration of special topics; and the delightful characteristic, so frequently manifested by French writers in medicine, of mingling philosophy with science, and rising to a grasp of general principles in the consideration of a special subject. The translator must be congratulated upon the successful way in which he has transferred the sense and idiom of the original.

* A Practical Manual of Mental Medicine. By Doctor E. Régis, formerly Chief of Clinique of Mental Diseases, Faculty of Medicine, Paris. Second edition. Authorized translation by H. M. Bannister, A. M., M. D. Price, $2.00. Press of *The American Journal of Insanity*, Utica, New York.

## FLINT'S PRACTICE OF MEDICINE.*

THERE can be little doubt that the foundations upon which "Flint's Practice of Medicine" was erected are of an imperishable nature. A clinical experience unparalleled in the life-time of any American physician, a series of records furnishing the results of half a century of closest observation, and an aptitude for analysis and synthesis rarely equaled and seldom surpassed; these form a substantial basis for a classical treatise. The hasty generalization and immature conclusion which characterize so much of latter day writing, are felt to be absent in the writings of this truly great man.

"Flint's Practice of Medicine," now appears in remodelled form. The present editor, Professor F. P. Henry, has wisely omitted the pathological section, feeling that this is matter which can be better relegated to special works. The therapeutical section has, of course, had to be considerably altered and brought up to date, in view of the considerable advances attained in this department of medicine.

Apart from the therapeutical aspect of the work, "Flint's Practice" serves to show how little change has really come over our conception of many important and dangerous maladies.

The book in its new form will prove a text-book of authority. Its lucidity and breadth of view make it *par excellence* the students' manual, and it will doubtless be largely patronized during the present sessions of the medical schools.

* Treatise on the Principles and Practice of Medicine. Designed for the Use of Students and Practitioners of Medicine. By Austin Flint, M. D., LL. D., Professor of the Principles and Practice of Medicine, and of Clinical Medicine in Bellevue Hospital Medical College, New York. New seventh edition, thoroughly revised by Frederick P. Henry, M. D., Professor of the Principles and Practice of Medicine in the Woman's Medical College of Pennsylvania, Philadelphia. In one very handsome octavo volume of 1143 pages, with illustrations. Cloth, $5.00; leather, $6.00. Philadelphia, Lea Brothers & Company, 1894.

# MEDICAL PROGRESS.

## THERAPEUTICS.

### NUCLEINS—A CLINICAL STUDY.

By JOHN AULDE, M. D., Philadelphia, Pennsylvania.

### INTRODUCTION.

The history of the study of nucleins extends over a period of more than sixty years, running back to the time of Braconnot (1831); but it is only within recent times that any systematic attempts have been made to determine their chemical and physiological properties with a view to their employment in the domain of practical therapeutics. The object of the present paper is to present a concise epitome of the subject, referring briefly to the more important questions likely to occur to the general practitioner relating to the source and method of preparation, physiological properties, therapeutic range, with clinical indications for their employment.

### SOURCE AND PREPARATION.

*Scientifically*, nuclein is described as a phosphorized proteid, the phosphorus existing in the form of nucleinic acid, combined with a highly complex basic substance. This basic substance yields as decomposition products one or more of the so-called xanthine bodies, adenin, guanin, sarkin, and xanthin. The available sources are as follows: Yeast-cells, yolk of egg, the spleen, the blood, the testicles, the bone marrow, the brain substance, and the thyroid and thymus glands.

*Historically*, nucleins have been studied by Braconnot (1831), Quevene (1838), Schlossberger (1834), Miescher (1845), Bechamp (1865), and later by Hoppe-Seyler, Lubavin, von Jaksch, and Plösz. In 1879 Kossel demonstrated that they possessed germicidal properties, and ten years later they received attention at the hands of Altmann. Liebermann prepared an artificial nuclein from albumin and metaphosphoric acid, and there should also be mentioned the names of Geohegan, Malfatti, Horbaczewski, and finally, in 1893, Vaughan, of America, Althaus, of England, and Germain Sée, of France.*

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* The appended references to contributions by the writer may be of some interest to those who wish to investigate further the clinical researches on this subject:

"Nuclein Therapy:" *The American Therapist*, December, 1893.
"The Principle Involved in the Subcutaneous Use of Blood Serum:" *Loco citato*, January, 1894.
"Clinical Observations on Nuclein Solutions:" *Loco citato*, February, 1894.
"Threshing over Old Straw:" *Loco citato*, February, 1894.
"A Note on the Employment of Nuclein Solution:" *The New York Medical Journal*, March 24, 1894.
"The Treatment of Diarrheal Disease:" "Transactions of the Medical Society of the State of Pennsylvania," 1894; *The American Therapist*, May, 1894.
"Organic Extracts:" *The American Therapist*, July, 1894.
"Nuclein—What is It ?" *The Medical Summary*, July, 1894.
"A Modern Idea in Scientific Medicine:" *The Medical Record*, August 11, 1894.
"Autumnal Catarrh:" *The American Therapist*, August, 1894.

*Yeast nuclein*, according to Vaughan, is prepared as follows: Brewer's yeast is extracted with dilute alkali and filtered, and the filtrate precipitated with dilute hydrochloric acid. The precipitate is redissolved in alkali and reprecipitated with acid several times, and is finally dissolved in 0.25 per cent. of potassium hydrate.

*Testicular nuclein* is prepared by means of artificial digestion, after a preliminary maceration and extraction with a mixture of equal volumes of absolute alcohol and ether. The testicular substance is then digested for some days with pepsin and 0.2 per cent. hydrochloric acid, the undigested portion being collected on a filter paper and worked, first, with 0.2 per cent hydrochloric acid, then with alcohol. The final step consists in dissolving the precipitate in a 0.5 per cent solution of potassium hydrate and filtering through a Chamberlain filter without pressure.

*Nuclein solutions* are also prepared from the blood, the spleen, the bone marrow, the brain, the thyreoid and thymus glands in the same manner as described for the preparation of testicular nuclein; but as all these solutions obtained in this way from animal sources contain a small percentage of albumin, this fact must be taken into consideration when using the product hypodermically. There is also danger of sloughing, owing to the presence of the alkali, when large doses are admintstered in this manner. Through the courtesy of a competent chemist I have been able to conduct my later experiments with solutions absolutely free from albumin or excess of alkali, which give rise to no untoward effects either hypodermically or when introduced into the system by way of the stomach. After a careful survey of the current literature, together with an extended series of clinical tests, the conclusion was reached that the thyreoid and thymus glands offered the most valuable and at the same time the most available source for obtaining this product, and, with some important modifications of Vaughan's process, a permanent and non-irritant solution of definite strength could be depended upon. Investigations are still in progress, and it is probable that a slightly modified product, a trifle less effective therapeutically, will in the end be found which can be prepared at a nominal expense.

## PHYSIOLOGICAL PROPERTIES.

Naturally, in studying the physiological properties of any remedy, we must consider the effect which results from its presence in the organism—that is, when brought into contact with the tissues; but it is not sufficient for the present demands of science simply to assert that a drug "stimulates," or acts as a "sedative," unless we are prepared to offer some rational and satisfactory

Professor Vaughan has published the following papers:

"The Principles of Immunity and Cure in Infectious Diseases:" *The American Therapist*, September, 1893; "Transactions of the First Pan-American Congress," Washington, District of Columbia, 1893.

"The Nature of the Germicidal Constituent of Blood Serum:" *The Medical News*, December 23, 1893; read by title at the First Pan-American Medical Congress, Washington, District of Columbia, 1893.

"The Nucleins and Nuclein Therapy:" *The Journal of the American Medical Association*, June 9, 1894; "Transactions of the Illinois State Medical Society," 1894.

Professor Chittenden has also published a paper bearing upon this subject:

"Nuclein in its Relationship to Uric Acid:" *The Dietetic and Hygienic Gazette*, February, 1894.

explanation of the mode by which such stimulation or sedation is produced. In the case of nuclein, for example, it is now well known that this is the name applied to a product more or less constantly manufactured by certain leucocytes (the multinuclear white blood-corpuscles), and, being distributed throughout the tissues by means of the lymph and blood vascular systems, a normal functional activity is maintained in the protoplasm. Now, poisonous substances produce stimulation of the protoplasm through the irritation set up, and, if long continued, this irritability is exhausted, when sedation follows; but it seems that Nature's laboratory is adapted to the production of a protoplasmic stimulant, possessing all the properties of an antiseptic which is non-irritant, and when, through faulty metabolism, leucocytosis is defective, nuclein can be artificially supplied.

It will not be out of place here to consider the methods of Nature in resisting the inroads or progress of disease, or the aim of physiological medication in the attempt to produce artificial immunity. Taking diphtheria as an illustration, the question may be asked, Why does not the disease persist so long as life continues? The answer to this will be, that the conservative processes of the human economy are sufficient, along with suitable medication, to arrest its progress; but this explanation, from a scientific stand-point, is utterly worthless, although it has done duty and has been repeated indefinitely for generations. How shall we explain the effects of physiological antagonism by inoculation with solutions prepared from pure cultures of the pathogenic microörganisms? In this category would also fall the method of preventing cholera, pneumonia, hydrophobia, tetanus, and the arrest and cure of certain forms of cancerous affections by means of pure cultures of the bacteria associated with the respective disorders. The following outline would seem to be a more appropriate and withal a scientific elucidation of this most perplexing problem: The vitality of the animal organism depends upon the integrity and normal functional activity of the cells. Derangement of the various organs is always the result of functional or organic perturbation of the cell life or cell activity, and upon this well-known fact rests the modern doctrine of cellular therapy. All, or nearly all, remedial agents are exhibited with a view to modify, to increase, or diminish cellular activity, so that cellular therapy is but a new name used to designate a method which has universally prevailed since the dawn of medical history. The scientific search-light has but revealed its existence, while the bacterial torch enables us to fix its position.

Now, these cells, which make up the different organs and structures, are themselves composed of cells—protoplasmic cells—and it is necessary, therefore, in order to modify their functional activity, that the protoplasm should be influenced, this being effected through the medium of the blood and intercellular fluids. Thus, the protoplasm is constantly bathed in fluids containing nutritive pabulum (and oxygen), which is taken up, and it gives off in return carbonic acid and other waste products. The protoplasm likewise possesses the power to convert oxygen into ozone, which is also a powerful antiseptic and deodorant.

Continuing this line of inquiry, we find that the power to resist or withstand disease is now attributed to "defensive proteids," and recent investigations clearly point to nuclein as one of the most effective proteids, if not the principal one, embraced in this modern physiological complex. Physiological investigation shows that nuclein possesses distinct antiseptic properties, and clinical observation has repeatedly demonstrated its therapeutic virtues in a long list of hitherto vexatious and intractable diseases. These results, according to my interpretation of physiological processes, are due to the influence of nuclein upon the protoplasmic cells; hence the term cellular therapy, nuclein therapy being an important subdivision.

During the progress of disease, more especially disease characterized by active inflammation, when nutrition is fairly maintained, the polynuclear white blood-corpuscles rapidly increase in number (inflammatory leucocytosis), and it is believed that at this stage they manufacture or produce nuclein in much larger quantity than under normal requirements. The nuclein in solution is thus brought into direct contact with the protoplasmic cells, and as a consequence their ability to resist disease, or rather, we should say, bacteria and their products, is measurably increased, not to mention the influence which is exerted directly by the presence in the blood and intercellular fluids of such a powerful antiseptic.

We have here, then, a lucid and at the same time rational explanation of the *vis medicatrix naturæ*, as demonstrated by physiological experimentation and confirmed by clinical observation. Health is maintained and resistance to disease effected mainly through the influence of nuclein as the most active of the so-called "defensive proteids."

It is now a well-recognized fact in physiology that in confirmed drunkards the effect of alcohol on the protoplasmic cells can be demonstrated—alcoholized protoplasm—and experiments now under way give promise that we shall be able shortly to estimate in like manner the effect of long-continued opium addiction —morphinized protoplasm—all going to show that the protoplasm may be subjected to what might be termed an educational process. Such a process, we are warranted in assuming, takes place during the progress of disease, the protoplasmic cells in time becoming immune against infection.

The foregoing appears to cover the main points involved when replying to the question relating to the persistence of disease, while it affords a scientific explanation of the conservative processes of Nature, although there are still remaining many important details which can be filled in by the intelligent and thoughtful physician.

## THERAPEUTIC RANGE.

The therapeutic range of nuclein will manifestly be determined by studying its proper physiological rôle in the economy, bearing in mind that it possesses a twofold action—upon the blood and upon the nervous system. Wherever Nature provides for the elimination of poisons or waste products of any description, there shall we find nuclein. Were it not for the antiseptic properties of nuclein, as it is poured into the stomach and intestine in combination with the normal secretions, what would be the condition of the alimentary tract at the end of twenty-four hours? Had not a wise provision been made for the protection of the mucous membrane of the pulmonary structures and upper air-passages, how long would it be until decomposition would supplant normal elimination? And the same train of thought applies with equal force to the skin, the kidneys, and the entire glandular system. The condition of affairs may be compared with an island, or even a large country, traversed by a complete system of railroads and provided with telegraph lines—diverging, intersecting, connecting—with public and private roads extending in every direction, all under one central management. In the case of war, famine, or pestilence, which may be likened to disease, the whole commercial mechanism of the country is manipulated with the sole object of relieving the local distress, and, like the little blood-corpuscles in disease, every inhabitant exerts his individual effort to the best of his ability in the hope of being able to contribute something toward restoring normal conditions.

We have in the recent strikes a modern instance of physiological concentration in the arrest of disease, as contrasted with the ancient *régime* which advocated counter-irritation. Had the authorities at the time of the Chicago riots undertaken to quell the disturbance by a show of fighting a thousand miles away, anarchy might still be present with us; but by distributing soldiers and concentrating a police force at the points of rebellion, the vicious element was subdued and order reëstablished. Just so it is in disease; Nature contrives to afford protection by means of the defensive proteids. We have an appropriate illustration of this in the case of boils, carbuncles, and abscesses. The same holds good also in the case of intestinal troubles—diarrhea, dysentery, peritonitis, and typhoid fever; and the principle extends to pulmonary and bronchial affections, shown by the increased secretion, where Nature attempts to correct defects by additional work.

Taking a comprehensive survey of the subject in hand, we should assume that the exhibition of nuclein would be useful, first, in the treatment of all forms of anemia, where nutrition is below par and digestion so impaired that insufficient pabulum is supplied to the white blood-corpuscles. By enriching the blood through the artificial supply of nuclein, the normal functions of elimination are improved and leucocytosis restored. Malaria, especially of the chronic or recurrent type, is promptly and favorably modified by the exhibition of nuclein. In both diseases the effect of medication can be demonstrated from time to time by an examination of the blood. In digestive disorders, whether occurring alone, associated with or dependent upon other disease, whether affecting the stomach or intestinal tract, nuclen solutions are most efficacious. Pulmonary disease, tuberculosis, pleurisy, pneumonia, and pleuro-pneumonia and bronchial affections generally respond promptly to nuclein medication; but a caution should be added to the effect that too much must not be expected of nucleins, presently to be more fully elaborated. In diseases of the skin arising from imperfect elimination or suboxidation, the administration of nuclein is attended with the most gratifying results; and it is even serviceable in correcting cutaneous lesions due to specific infection, doubtless owing to the improved character of the insensible transpiration. Derangements of the renal functions are perceptibly improved by nuclein. In a marked case of albuminuria, the urine was increased, the percentage of albumin lessened, edema of the extremities and abdominal distention diminished, and there occurred a decided improvement in the digestive function. The effect of nuclein upon the kidneys during the progress of disease elsewhere is not especially marked, the urinary flow being slightly increased, but the general character of the water is distinctly improved.

From the preceding remarks, the effect of nuclein upon the nervous system will be inferred. When disordered innervation results from faulty assimilation or defective elimination, its beneficial influence becomes quickly apparent, but its virtues are particularly noticeable when the history of the disease enables us to designate some local ailment or derangement as the exciting cause for the persistence of the malady. Thus in females, menstrual irregularities may be responsible for a mild form of melancholia, which promptly subsides upon reëstablishment of a more active tissue metabolism. In men, immoderate coffee-drinking not infrequently paves the way for subsequent cerebral disturbances. Upon removal of the cause the hepatic functions regain their vitality, and with the addition of nuclein elimination at distant points is favored.

The stimulant effect upon the cerebral functions can easily be demonstrated; taken at a time when the vital powers are depressed and the physical system exhausted from overwork, a few doses, often a single dose, creates a feeling of mental buoyance; the step becomes firm and elastic and ambition supplants languor. This property has frequently attracted attention in the aged and in those suffering from chronic maladies.

The foregoing recapitulation embraces substantially the groundwork of nuclein therapy from the stand-point of the clinician; but in order to give the present article a practical turn it will be advisable to enter somewhat into detail respecting several of the more prevalent maladies common to this latitude.

## CLINICAL INDICATIONS.

*Anemia.*—Anemia is essentially a wasting disease, the nutrition of the blood being impaired by the presence of waste products and other poisonous elements remaining in the system. Persons thus affected suffer from headache, neuralgia, various forms of catarrh, fugitive rheumatic pains, lack of appetite, sleeplessness, and constipation. The facial expression is indicative of weariness, the gait is slow and unsteady instead of being elastic and firm, while mental hebetude is often most pronounced. This condition is liable to appear in both young and old in every station of life, but it is more particularly noticeable in young girls and those who have had malaria or some lingering disease. It is frequently marked as the sequela of acute diseases, convalescence being tardy owing to faulty assimilation.

An examination of the blood shows that the red corpuscles are in an unhealthy condition, and, as a consequence, are unable to carry oxygen to the tissues; hence, combustion is lessened, the vitality of the system reduced, and the patient becomes susceptible to other diseases—pleurisy, pneumonia, pleuro-pneumonia, bronchitis, and rheumatism in winter, and the usual bowel troubles, typhoid fever, subacute and chronic catarrh in summer and autumn. To remove these irritants and restore the function of the little red blood-globules, of which there are about two hundred trillions in the human body, is a work of no small magnitude, and heretofore has required much time, patience, and skill on the part of the physician; but with the exhibition of nuclein, suitable diet, and proper hygiene, a favorable impression is produced at once, and the patient gains perceptibly from day to day. Nuclein, however, is not strictly curative without these adjuvants, but it paves the way, setting the patient on his feet, as it were, and does not preclude the use of other approved medicaments. An examination of the blood under the microscope discovers the true condition, and enables the physician to determine progress from time to time.

*Malarial Disease.*—This disease is better understood than in former years.

since it has now been repeatedly demonstrated that a vegetable microörganism is present in the blood. Under the microscope the influence of this parasite upon the red blood-corpuscles can be studied, and with its disappearance the disease subsides. The presence of nuclein in the blood and intercellular fluids appears to have a demoralizing effect upon the microörganism and stimulates the blood and tissues to discharge an unwelcome guest, a few days only being required to produce a favorable change in the condition of the patient. The suggestion is thrown out here that possibly this effect is due more to the stimulation of the leucocytes (leucocytosis) than to the direct action of the substance upon either the blood or the parasite; but at any rate the transformation is effected without the least disagreeable symptoms or untoward effect such as characterizes the treatment by quinine. Chronic cases, and those which show a disposition to return spring and autumn (recurrent malarial disease), are readily controlled by nuclein, improvement being observed within a few days; the languid feeling disappears, appetite returns, the bowels become regular, pain over the liver and in the back vanishes, the muddy, sallow, and greasy appearance of the skin clears up, and physical and mental activity no longer seem burdensome. Rarely will it be necessary to exhibit other medicines for the relief of this troublesome affection, except for the purpose of supplying the system with certain elementary substances that it has failed to secure because of long-continued malassimilation.

*Bronchial Affections.*—In the case of bronchial affections, subacute and chronic, nuclein shows its sterling value as a remedial agent. The health of most persons thus affected is a trifle below par, and as a consequence the mucous membrane lining the tubes is called upon to perform vicariously the function of elimination. Hitherto, treatment has consisted in the exhibition of remedies calculated to *increase* secretion, while the wise physician should aim to *lessen* secretion, endeavoring at the same time to increase the activity of elimination at other points, thus reducing the output through the bronchial tubes, and this purpose nuclein most satisfactorily accomplishes. It regularly and persistently augments the functional activity of the skin, the kidneys, the liver, and produces a favorable action upon the bowels, probably through increased cellular activity, both systemic and locally at the points of elimination. As a result, cough subsides, expectoration ceases, the appetite improves, and the patient gains strength, because, through this increased cellular activity, the normal functions are restored by a process which is in harmony with Nature's methods and in conformity with her laws.

*Humid asthma* and nearly all forms of *autumnal catarrh* are amenable to treatment by nuclein solutions; but in many of these cases, owing to the debilitated condition of the muscular system, it will be advisable to combine with its administration the use of strychnine in some form, preferably small doses of the arsenite.

*Influenza.*—My experience with the nuclein solutions in combating influenzial complications during the past two winters has been remarkably favorable—so much so that in mild cases no other remedy has been employed, except for the control of special symptoms, such as accelerated pulse, headache and other neuralgic pains. In convalescence from this disease, with the addition of small doses of strychnine arsenite (one one-hundredth of a grain every two hours), recovery is remarkably prompt and apparently complete; cough and expectoration subside, strength is regained, appetite restored, and the patient is up and about within a few days after the acute stage has passed. There is no pronounced weakness, no lingering debility, and no demand for continued medication.

*Pulmonary Diseases.*—In the treatment of pneumonia, pleuro-pneumonia, pleurisy, and tuberculosis, the beneficial action of this remedy is sufficiently marked to be worthy of mention, although it is not advocated as a curative agent. In pneumonia, for example, when the circulation is under control, in the absence of hyperthermia, when elimination by the natural channels is arrested—shown by the embarrassed respiration and cardiac debility—solutions of nuclein can be depended upon to rekindle the dying flame by contributing toward the restoration of the normal condition of the blood. Still, there must be some doubt as to whether nuclein actually supplies something that is wanting in these cases; rather it stimulates leucocytosis, thus augmenting the antiseptic properties of this fluid. The same is true of its action in the treatment of pleurisy.

In tuberculosis it lessens the cough by dimishing expectoration, improves the appetite, regulates the bowels, increases elimination by the skin and kidneys, decreases the frequency of the exacerbations due to extension of the disease, controls in a measure the *night sweats*, and creates a feeling of well-being, while it does not interfere with the administration of other medicaments hitherto so highly prized for their antiseptic properties.

*Disorders of Digestion.*—In all functional disorders of the digestive system, diet being regulated, the effects are apparent within a few days. It also possesses a high degree of utility in acute attacks, more especially after the initial stage. Nuclein is almost a specific in the treatment of tonsillitis (amygdalitis), follicular and parenchymatous, arising from digestive disturbances superinduced by cold and exposure. Indeed, in every variety of throat trouble its virtues are manifested within a few hours, although relief is less marked in those cases associated with a rheumatic diathesis.

Leucocytosis being defective in typhoid fever, the advantages of nuclein in this disease will at once suggest themselves, and as an adjuvant to modern antiseptic methods—for its influence upon nutrition—it will eventually occupy a position of no mean significance.

*Diphtheria.*—In quite a large number of cases where all the symptoms pointed to diphtheria as the true condition I have found nuclein solutions most efficacious, the false membrane, angina, anorexia, and restlessness all disappearing in less than twenty-four hours; and, although some fever remains for a day or two, if seen early in the attack, the most forbidding symptoms promptly yield to this form of medication. Being absolutely tasteless, prompt in its action, and entirely free from objectionable after-effects, children take it readily, frequently asking the nurse if it is "time for the medicine."

## ADMINISTRATION.

The administration of nuclein solutions differs in no wise from that of other remedies. The usual dose for an adult is, approximately, one-third of a minim of the standard solution adopted, and for convenience and economy it is put in the form of tablets or granules. This dose can be repeated at intervals of from two to four hours; but in acute cases, where the patient is seen late in the day, the dose may be repeated at intervals of an hour for that day. For a child five years of age the dose should be about one-third of this quantity, which can be regulated by solution in water.

In the treatment of throat troubles some advantage appears to be gained by allowing the tablet or granule to dissolve in the mouth. Tablets have been prepared for me by Mr. Charles Leedom, a local druggist of this city.

*Hypodermically*, notably in the case of malaria and anemia, I have administered much larger doses, usually beginning with five drops and increasing the dose at each visit on alternate days until eight, ten, or twelve drops were given in this manner. In one case of long-continued malaria I exhibited the equivalent of a drachm, not only without ontoward effect, but with decided benefit.

There are practically no contraindications, except perhaps perfect health, since, so far as my observations extend, this solution is non-toxic. The only perceptible symptoms which might be regarded as at all unfavorable, and these are inconsistent, are slight passive congestion of the pharyngeal structures occasionally, increased flow of urine, and generally the development of sulphuretted hydrogen gas in the intestine; but these defects may be avoided by decreasing the dose.—*The New York Medical Journal*, September 29, 1894.

## MEDICAL MELANGE.

### CHEST PAINS.

Chest pains usually cause great discomfort to a patient and are not sufficiently appreciated by the physician. Doctor J. K. Crook relates a series of cases in *The American Medico-Surgical Bulletin* as illustrating the diagnostic value of chest pains. In some cases these pains are reflected from an overloaded or disordered stomach, in some cases it is a neuralgia, and in exceptional cases the lungs themselves are at fault. Most persons with pains in the chest think they have some lung or heart disease. Pneumonia causes pain but the other symptoms make the diagnosis clear. Consumption is not a disease accompanied by pain and when it does occur it is from continual coughing.

### HYGIENIC VALUE OF PERFUMES.

Doctor Andres, of Philadelphia, a few years ago made the interesting discovery that the ozone in the atmosphere, the element which is the great purifier, was mainly supplied from blooming flowers—and for this reason blooming plants were healthful in dwelling houses as well as attractive. Some interesting experiments with the odors of flowers have been made in the old world, and it is found that many species of microbes are easily destroyed by various odors. The odor of cloves has been known to destroy these minute creatures in twenty-five minutes; cinnamon will kill some species in twelve minutes; thyme, in thirty five. In forty-five minutes the common wild verbena is found effective, while the odor of some geranium flowers has destroyed various forms of microbes in fifty minutes. The essence of cinnamon is said to destroy the typhoid fever microbe in twelve minutes, and is recorded as the most effective of all odors as an antiseptic. It is now believed that flowers which are found in Egyptian mummies were placed there more for their antiseptic properties than as mere ornaments or elements in sentimental work.

## THE ARREST OF LACTATION BY COCAINE.

PAINFUL fissures of the nipple have for some time past been treated by the application of cocaine, either in the form of an ointment or a liniment. It has been found, however, that when thus employed the secretion of milk is diminished and the erection of the nipple prevented. These objections have led Doctor Joire, of Lille, to use cocaine with the direct object of checking the secretion of milk when necessary. He recommends a solution of one gram of cocaine in ten grams of water and ten grams of glycerine, and he advises that this should be used as a lotion to the nipple five or six times a day. He explains the arrest of secretion by the anesthesia of the nipple which results.—*London Lancet.*

## RAPID PREPARATION OF MERCURIAL OINTMENT.

PUT into the mortar one hundred parts of an already prepared ointment, and add five hundred parts of mercury. Triturate rapidly, and while doing so pour over the mixture fifty parts sulphuric ether. Continue the trituration, and in a few moments the mercury will be in a state of the minutest subdivision, when you can add one hundred parts of lard (or vaselin or lanolin). A few minutes more of vigorous trituration completes the operation. If, upon close examination, a few globules of uncomminuted mercury be seen, add a trifle more ether and triturate. Finally add the other ingredients and incorporate. This method not only saves a grêat deal of time and labor, but insures a more perfect comminution of the mercury.—*Journal de Pharmacie d'Anvers*

## STROPHANTHUS IN DIPSOMANIA.

A RUSSIAN physician, Doctor Skvortzaw, while treating a patient in an attack of dipsomania, administered tincture of strophanthus in the dose of seven drops three times a day in order to relieve the action of the heart, which showed a degree of weakness and remittent pulse, and to his surprise found that with the first dose the patient was taken with nausea and disgust with alcohol, the usage of which he stopped at once. In two other cases he had subsequently to treat, he adopted the same medication with the same result; the attack of dipsomania was abated at once. In all three patients the symptoms were the same; the drug first caused nausea, followed in a short time by free perspiration, phenomena not usually observed in non-alcoholic cases. In none of the three were there any mental symptoms following the sudden stoppage of the stimulants.

## THE ANTISEPTIC PROPERTIES OF OIL OF CINNAMON

DOCTOR D. BRADEN KYLE has used the Ceylon cinnamon oil in the treatment of infective varieties of nasal, laryngeal, and aural affections, with marked success. He explains the action of the oil as follows: The germ being an albuminous compound, composed mainly of nitrogen, oxygen, and hydrogen, and being enclosed in a capsule of varying thickness, the chemical composition of which is cellulose, when brought into contact with the active principle of the oil, the cinnamic acid, has its cell-wall contracted, which practically deprives the germ of its nutrition. By microscopical examination this theory is confirmed. In cases in which the solution of the oil, 1:500, was put to the clinical test, the wounds healed by first intention. However, it is not a safe antiseptic for surgical work, although a good mucous-membrane antiseptic. It is not, however, a germicide.—*Therapeutic Gazette.*

## A BRAVE PHYSICIAN.

Benjamin Rush was eminent as a practitioner, both in private life and in the hospital staff, fearlessly combating the pestilential diseases that were common in his day, by one of which, edemic typhus, he lost his life in the sixty-eighth year of his age, on the 19th of April, 1813, as heroically as any soldier who ever faced a battle in the front file of a forlorn hope. What greater courage can man show than the incident related to Commodore Meade by his grandfather, whose father, George Meade, was Rush's intimate friend, by which it appears that in order to prove that yellow fever then raging (this was in 1793) was not contagious in the sense of small-pox, Doctor Rush deliberately swallowed a spoonful of black vomit ejected by a dying patient? True bravery, not mere bravado, since he sought to stay the panic fear, which was slaying its tens when the disease was only killing one—heroism akin to the act of Surgeon Robert D. Murray of the United States Marine Hospital Service, who, with the spirit of the soldier who throws his body in the breach, calmly slept between the still warm sheets from which a victim of yellow fever had just been taken! If courage be the attribute of the soldier who, in the heat of battle, with martial music, and wild hurrahs, charges an enemy's battery, what shall that be called which nerves the physician, in the solemn stillness of a pestilence, to enter a crowded yellow-fever or small-pox ward, or encounter the deadly deluge of the ejecta of the cholera patient to whom he is ministering?—Albert L. Gihon, M. D., United States Marine Hospital Service.

## CALOMEL IN TYPHOID FEVER.

J. Wellington Byers, M. D., writing of "The Antiseptic or Rational Treatment of Typhoid Fever" in *The Charlotte Medical Journal*, says: "As is well known calomel rapidly and materially retards decomposition due to microbes, and this action is not interfered with when mixed with fecal matter as is the case with a number of other substances of this class. My plan has been to administer at the beginning of the attack, small doses, sixth of a grain, of saccharated calomel, combined with bicarbonate of soda, every hour until the bowels have been freely evacuated. This is repeated every day or every other day, during the first ten days' sickness, as the indications demand, unless diarrhea supervenes, which is a very rare occurrence, when the remedy is suspended for a time. I may add, however, that it is exceptionally rare to have a diarrhea at this stage of the disease when the calomel is employed in this way. The looseness of the bowels in the first few days of the attack is always a symptom of fermentative changes which are present as the consequence of lower digestive processes and the presence of microbes, and it is not possible for the latter to cause the putrefactive changes when this antiseptic is present in the intestines in the quantities mentioned. Diarrhea is in itself a mere symptom indicative of microbic influences in the contents of the alimentary canal and these are excessively rare under normal digestive conditions or in the presence of antiseptic substances. When calomel is used in the manner given I find that the functions of the stomach are more properly performed, the tongue is clean and moist, there is absence of tympany, the secretions are open with perfect glandular action, a series of circumstances in which it is quite impossible to have diarrhea.—*Matthew's Medical Reporter.*

# PRACTICE.

## OBESITY.

A. Dietrich, M. D., of Durfur, Oregon, in *The Medical Sentinel*, writes: In the same degree as the esthetic sense is cultivated and beauty is admired, of which obesity is *au contraire*, the physician is confronted with the task of "shaping down" a surplus of adipose tissue in the male as well as in the female. Most of the recommended drugs are either quite doubtful in their action, or, for various reasons, undesirable, especially the iodine preparations, and no doubt many of the profession have become disgusted with the task imposed upon them, and will firmly declare that diet is the only means of bringing about a reduction of corpulency. While on one hand, it cannot be denied, that a proper course of dieting will reduce obesity, it is, on the other hand, quite evident that circumstances will not always permit such a dietetic course of treatment; and, again, that this method will not tend to beautify the appearance of the individual, but cause wrinkling of the integument and thereby the appearance of premature age, and, what I have particularly observed in my own case, a very marked alopecia. Therefore, this method may as well be classified as undesirable, inasmuch as the main object is not attained, that is, esthetic improvement of the person. What now? Now comes the puzzle. Shall we abandon the idea of all medicinal or any other treatment, or continue to give newly recommended agents for the diminution of corpulency a fair trial? I decided for the latter, and am pleased to say that I have no cause to regret it. About a year ago my attention was called to "phytoline," the active principle of "phytolacca decandria"—pokeberry,—a preparation offered by the Walker Pharmacal Company, of Saint Louis, Missouri, as an ideal "antifat." Though I had my doubts as to the merits claimed for the preparation, I took occasion to test the same, and in the following you will allow me to quote the results:

My own case. September, 1893, weight, two hundred and ninety-three pounds; circumference of chest, forty-nine inches; of abdomen, forty-eight inches; respiration difficult; slightest exertion would cause quite distressing palpitation of the heart; constant feeling of impending danger. Commenced taking liquor potassæ one drachm, thrice daily, after meals, and continued for one month; no result. October 15, commenced taking phytoline, minims ten, in water, before and after meals, making one drachm daily. November 1, weight, two hundred and eighty-seven pounds; decrease six pounds. January 1, 1894, weight two hundred and eighty-two pounds; decrease five pounds. February 1, two hundred and eighty-three pounds; gain one pound. From this time I absolutely, till this day, avoided all alcoholic beverages, continuing phytoline, increasing the dose minims twenty, in hot water, same as before, making two drachms daily, and the general improvement was wonderful. March 1, weight two hundred and seventy-one pounds; decrease twelve pounds; respiration free and easy; no palpitation of heart; enjoyed long walks, et cetera. April 1, two hundred and sixty-one pounds; decrease ten pounds; circumference of chest, forty-six inches; of abdomen forty-one and one-half inches; am able to move with rare activity, without getting tired; feel splendid, and once more I am able to buy ready-made inexpressibles at any clothier's.

*Case II.*—Mrs. M., aged forty-seven, height five feet five and one-fourth inches; weight two hundred and fourteen pounds. Commenced taking phytoline April 13, 1894. On that day she presented a miserable appearance; said she could not sleep; had to sit up in bed or would have smothering spells. During the day the lower extremities would swell to enormous size, and to use her own language, she "felt too lazy to eat." Ordered phytoline, minims fifteen, in hot water, before and after meals, making one and one-half drachms per diem. She improved rapidly; has now taken nine bottles of phytoline and has lost thirty-three pounds, her present weight being one hundred and eighty-one pounds. Accordingly she looks and feels much better and will continue to take phytoline.

## CLINICAL NOTES.

**Thirty Years' Experience.**—For thirty years I have used syrup of the hypophosphites and Churchill's formula since its introduction to the American market through Doctor McArthur. It is certainly one of the best, if not the best, I have known in the practice of medicine. It is remarkable for its combination of all the ingredients which are so well blended together in it and gives satisfaction to the patient and success to the practitioner.—Henry E. Dwight, M. D., Philadelphia.

**Platt's Chlorides in Obstetrical Practice.**—O. L. Lusk, A. M., M. D., of New York, says: The importance of employing some antiseptic in the lying-in chamber is recognized by every practitioner whose methods of treatment are based upon modern teachings. In the puerperal state, as is well known, a woman is rendered peculiarly susceptible to unsanitary influences and infection, and hence it is the manifest duty of the obstetrician to secure thorough disinfection of the lying-in room, the bedding, and of the discharges from the patient. To accomplish this purpose we must make use of a disinfectant of high germicidal properties, but devoid of such objectional qualities as disagreeable odor and poisonous or irritant effects. I have found all these good features realized by Platt's Chlorides, which I have employed in a large number of cases with perfect satisfaction. It is a strong disinfectant, harmless and free from odor, will not stain the bedding, and, in a word, accomplishes all that can be asked of it.

**Angelo de Bellomi**, of Città di Amandola, Italy, says: I am pleased to inform you of the successful results by the use of your bromidia as hypnotic and sedative. I prescribed it for a lady suffering from severe vomiting due to pregnancy, and which threatened to cause abortion from denutrition. I had previously tried opium, chloroform, creasote, and oxalate of cerium, all without effect. I gave ten drops in a little sweet wine three times a day before meals. The vomiting ceased the first day, four days later I was able to discontinue the use of bromidia, and now after a month there has been no return of the vomiting, and the patient is perfectly well. I have found bromidia excellent in delirium tremens accompanied by insomnia, also in the delirium of typhoid, and in bronchitis with neurasthenia following influenza. In a case of chronic nephritis where all kinds of hypnotics, antineuralgics and analgesics had failed to give relief, bromidia, in doses of a teaspoonful morning and evening, gave relief at once; and in a few days effected a complete cure. After such encouraging results, I am sure bromidia has a brilliant future before it.

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### APPENDICITIS: ITS MEDICAL AND SURGICAL TREATMENT.*

By CARL BONNING, M. D., Detroit, Michigan.

[Published in The Physician and Surgeon exclusively]

During a discussion on appendicitis at one of our meetings about a year or more ago, I claimed, that according to the results obtained in my practice with the so-called "ice and opium" treatment, about eighty per cent. of my cases of appendicitis had recovered without an operation. One of our members has since then asked me repeatedly to give the details of this treatment in the form of a paper to our society, as some of the physicians might not be familiar with the same.

Though hesitating, at first, to take up your time again with the subject of appendicitis, as the same has been discussed by us on different occasions, after due consideration of the fact that this subject is of such great importance, not only to the surgeon, but especially to the general practitioner, who as a rule will see these cases in the beginning of the trouble, I finally concluded to come before you to-night with a paper on the medical and surgical treatment of appendicitis, and I am still further prompted to do so, as during the last year my views regarding the treatment of this disease have decidedly changed.

A correct and early diagnosis, and correct treatment instituted from the first beginning of this formidable disease, will enable the physician to give almost universally a good prognosis, and where twenty-five years ago about seventy per cent. of all cases of appendicitis would die, at the present time the death-rate should hardly reach more than five per cent.

The diagnosis of appendicitis is by no means difficult to make, and if physicians will not feel satisfied with prescribing an opiate or a laxative to every patient who comes to them, complaining of more or less pain in the abdomen, with an inclination to vomit, with diarrhea or perhaps the reverse, constipation, with more or less rise of temperature, but will make a very careful examination of the abdomen, a case of appendicitis, even in its incipiency, will hardly ever be overlooked.

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*Read before the Detroit Medical and Library Association.

If only the slightest indication should point toward a commencing appendicitis, we should at once order our patient to bed, and begin our treatment by placing an ice-bag over the ileo-cecal region. In cases where a history of constipation is given, an effort may be made to move the bowels by an enema or a saline laxative, but by no means should we persist in this direction if such procedures will aggravate the symptoms. In the latter case, as well as in those cases where diarrhea has existed, or where the bowels have moved after a laxative, we should at once commence the administration of opium. I very rarely have been obliged to give larger doses than a quarter of a grain of powdered opium every hour or two to make the patient feel perfectly comfortable, and as the symptoms abate, a dose every three to four hours may be sufficient. In some cases the hypodermic administration of morphia may be preferable to the use of opium. Only fluid diet in small quantities is allowed, and this treatment is persisted in, day after day, until the symptoms gradually subside, or on the other hand, until it may seem advisable, or perhaps imperative, to subject our patient to a surgical operation.

As yet no infallible signs and rules can be given by which we may be guided to decide whether an operation is necessary, and when it should be performed, and whilst in some cases an operation twenty-four or forty-eight hours after the onset of the disease may become absolutely necessary to save our patient's life, in another case we may well postpone an operation from day to day, without endangering our patient in the least. Eternal vigilance on the part of the attending physician is therefore necessary, in order not to let the suitable moment slip by, when an operation, skillfully performed, would have terminated a case successfully, which otherwise succumbs to an untimely death.

Whilst if the case progresses favorably under the ice and opium treatment, and no operation is deemed necessary, after a time the ice-bag will become uncomfortable to the patient and may be left off, the intervals between the administration of the opium may be lengthened, and gradually a somewhat more substantial diet may be allowed. If the bowels have not moved by the tenth or twelfth day, an enema may be gently administered, or a dose of castor oil may be given, and it is important to know that no bad consequences will arise, even if the bowels have been confined for two weeks, and more harm may be done by administering a laxative too soon than by waiting a few days longer.

Under this simple line of treatment the greatest number, about eighty per cent. of our cases will recover, whilst in order to save the remaining number of cases a surgical operation must be undertaken. Yet, we must admit that a number of these recoveries without an operation are always in danger of one or more recurrent attacks of appendicitis during the remainder of their life, and in order to prevent these recurrences, and to protect our patients against the perils which come upon them with each subsequent attack, only one thing is left for us to do, namely, to operate. Such an operation may be attempted during a recurrent attack, or preferably, in the interval between two attacks.

So we see that in order to save the greatest number possible of our cases of appendicitis, and to guard against future attacks, a large number of them have to submit to an operation, and this leads me to the question: Is it not the best, and to the greatest advantage of our patients, to operate in every case of appendicitis?

It is hardly necessary for me to remind you of the great and wonderful progress in abdominal surgery during the last few years. While only ten years ago it was fraught with the greatest danger to open the abdominal cavity, at the present time we have learned to avoid the perils connected with laparotomy, and this once dreaded operation is safely performed by surgeons all over the world, and every day.

Must we then wonder at some of our foremost surgeons demanding that every case of appendicitis be operated upon? Truly, the results of these surgeons who pursue this course are extremely gratifying, for the mortality after these operations, with them, will not reach more than two to five per cent.

I think the time is fast approaching when every conscientious physician will place most of his cases of appendicitis into the hands of the surgeon, for we can never hope to accomplish without the aid of the knife such brilliant results as our surgeons are meeting with, and the medical profession may well feel proud about the great triumph which medical science, ever progressive, has achieved within the short space of a few years in the successful treatment of this once dreaded disease.

I have purposely abstained from giving the details of operating in these cases, leaving this part to the surgeon, yet I feel that I must call your attention to the importance of removing the appendix in every case, where the same can be found, as otherwise we may have our patient suffer from a recurrent attack, the same as if no operation had been performed at all. A number of such recurrences are already on record, and I will add one such case which happened in my practice.

H. T., male, aged forty-five years, suffering from appendicitis, was operated on the third day after being taken sick. A large amount of sero-purulent fluid was removed from the abdominal cavity, but the appendix was not taken away. A good recovery took place, but just one year after this attack the man suffered from a relapse of his trouble and had to undergo a second operation, from which he also made a good recovery.

I have purposely limited my paper to as few lines as possible, giving you merely a short sketch of the treatment of appendicitis as practiced by me and found most successful, and I hope that a full discussion of this subject to-night will bring before our society the views of those mostly interested in, and most able to speak about this, by no means, rare disease.

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## THE TREATMENT OF CONGENITAL CLUBFOOT.*

BY GEORGE S. NEY, M. D., DETROIT, MICHIGAN.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

As the etiology of congenital clubfoot has not yet been definitely determined it will be beyond the province of this paper to enter into a detailed report of the various theories that have from time to time been advanced. Whether this deformity is the result of pathological changes affecting the child in utero or of mechanical forces acting upon the fetus prior to birth, or arrest of development or hereditary influences, or, more probably, non-rotation inwards of the lower extremities, need not greatly concern the practical surgeon in adopting measures for its correction.

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*Read before the DETROIT MEDICAL AND LIBRARY ASSOCIATION.

Before entering upon the treatment of congenital talipes we may, perhaps, with profit, take a cursory glance at the various methods that have been in vogue, since the year 1784, for it was during this period that our present methods were slowly evolved. As early, however, as the fourth century before Christ we find in the writings of Hippocrates rules laid down for the management of the clubfoot. In the early stages he relied upon bandages, and later on the application of a lead shoe having the shape of Chian slippers. For the next two thousand years or more nothing was added to the achievements of Hippocrates, but on the contrary the subjects of this deformity were considered fit objects of divine wrath. During all these twenty centuries superstition and bigotry hung like a heavy pall over the Eastern world, and he who would embark on expeditions of scientific research, sooner or later, would usually find himself crushed beneath the iron heel of persecution. The very name of clubfoot was a synonym for evil, and as such, any reference to the subject was interdicted. Not till about the middle of the seventeenth century do we find in medical literature any further allusion to this topic. In 1741 Ambroise Paré attributed clubfoot to the fact that the mother, during gestation, had been sitting too much with her legs crossed. He recommended a certain form of boot for its correction. For the next forty-three years no marked improvement seems to have been made in their methods of treatment, their chief reliance being placed on mechanical applications, which were not attended with any great degree of success. In the year 1784, however, Thilenius, a physician of Frankfort, recommended, on theoretical grounds, section of the tendo-Achilles for a case of talipes equinus. The operation was accordingly done under his direction by the open method and the result was a complete success.

Without stopping to even enumerate the brilliant coterie of names who did so much for the advancement of this particular branch of surgery, we will pass on to the year 1816, which marks the next great advancement in the technique of this operation. In this year subcutaneous tenotomy was performed for the first time by Delpech, of Montpelier, but its merits did not seem to be fully appreciated until Stromyer, in 1831, succeeded in establishing it upon a permanent and scientific basis. From this time, until the past few years, the application of mechanical appliances for the gradual stretching of the tissues, with or without subcutaneous tenotomy, as appeared to be indicated in each individual case, the whole course of treatment usually covering some years, seems to have been the most popular method of treating clubfoot.

Having roughly glanced at past methods, it now remains for us to conside briefly, some of the fundamental principles which should govern us at the prese time in dealing with congenital talipes. As the compound form, talipes equin varus, is by far the most common, of the congenital affections, I shall confi myself largely to this particular variety. Until recently it was customary, in dea ing with equino-varus, to divide the operation into stages, first correcting the equ nus and after union of the tendon had taken place, to deal with the varus, by second operation. At the present time there is an undoubted tendency on th part of most operators to relieve all of the deformity, whatever it may be, at a single operation. All physicians will agree that the treatment of congenital talipes should commence at birth, and the simplest means that will remove the deformity should, of course, be first chosen. In mild cases, simple hand-pressure, which may be conducted by the parents or nurse, is often all that will be required. In the more severe cases, an anesthetic may be given and forcible correction made, with the hands of the operator, or by wrenching or crushing with various mechanical devices. The THOMAS wrench, or DOCTOR PHELPS' machine, will fulfill all the requirements where forcible correction, at one sitting, is deemed necessary. Either of these machines may be employed to break down long resistance after the soft parts have been divided by the knife or tenotome.

In a limited number of cases THOMAS' method may be employed, which consists in forcibly stretching all the contracted tissues by means of the wrench until their resiliency is abolished, when the limb is placed in a retentive apparatus and kept there till the resiliency tends to return, when the same operation is repeated every few days, or, until there is no further tendency to relapse. It would seem to me that the operation has a limited range of usefulness.

Should the more simple procedures prove inadequate, tenotomy will then have to be considered. The first question that will arise is, When shall it be done? Obviously, the answer to this question must rest with the judgment of the surgeon. Most operators, I take it, will not submit to the diction of SAYRE, to wait till the tendon is contractured, when there will be a reflex spasm produced, if point pressure be made over the tendon, while it is first upon the stretch. A simple tenotomy, followed by unwinding of the foot, will be found necessary in a large majority of the cases of talipes equino-varus. As there is scarcely any danger connected with the operation, it will usually prove much more satisfactory to both physician and patient than any prolonged method of stretching, which necessitates more or less expensive apparatus.

With regard to tenotomy, I think the error of too great conservatism is frequently made, the deformity being only partially corrected, the operator hoping to obtain the desired result by supplementing his operation by further stretching, whereas, all resisting bands, whether they are skin, fascia, tendon or ligament, should be severed at the time of operation, and the deformity of the foot over-corrected, by means of the hand or wrench, before the anesthetic is withdrawn. Should any important vessel be wounded and the hemorrhage be sufficient to demand pressure, a free incision should be made and the vessel ligated, or pressure will diminish the quantity of plastic effusion between the severed ends of the tendon and thus promote a weak union.

## DOCTOR PHELPS' OPERATION.

A very radical departure from ordinary routine methods was made by DOCTOR PHELPS in 1879. At first blush, his operation might seem like a step backwards as the operation requires an open wound, but in these days of aseptic surgery an open wound is a matter of no great moment. His operation consists in first dividing the tendo-ACHILLES and then making an incision from a point just a little anterior and inferior to the internal malleolus, and extending to one-third the distance across the sole of the foot—all the tissues being freely divided down to the bone. Through this wound all resisting structures in the soft parts may be freely divided, after which great force may be employed by adjusting DOCTOR PHELPS' machine for the purpose of supercorrection of the foot. If this fails to over-correct the foot, an osteotomy may be made through the neck of the astragalus, and if this proves insufficient a V-shaped portion of bone may be removed from the os calcis. If all else fails PIROGOFF's amputation will be justified. PHELPS' operation adds greatly to our resources in the management of inveterate cases, but of course, will not be resorted to as long as the desired result may be obtained by more simple means.

### RIDLON'S OPERATION.

This is a modification of PHELPS' operation, the object of which is to avoid a tender scar on the sole of the foot. I shall not occupy your time with a detailed description of this operation. The first incision is somewhat similar to that in PHELPS' operation, only it does not extend through the sole of the foot, but stops at the lower border of the tarsal bones. A second incision almost at right angles with the first and parallel with the sole, is made along the inferior surface of the tarsal bones, so that all resisting bands may be divided from within, rather than from without. The former operation has the advantage of simplicity, and if I mistake not in efficiency also, inasmuch as the contracted skin in some cases is one of the factors in retaining the foot in a false position. The dressings will be similar in both operations. The edges of the wound are first approximated with silkworm-gut or other suture, without producing too great tension. The wound is then covered with LISTER's protective and aseptic dressing. The wound will usually heal by blood-clot organization if the operation throughout has been conducted with strictly aseptic precautions. Over all, a plaster of Paris cast is applied, the foot being held in a supercorrected position. The cast should not be removed for a month unless from soiling or odor it becomes necessary. After all wounds have healed, some form of mechanical support, such as a TAYLOR shoe, may be required for a greater or less length of time.

With regard to the other forms of congenital talipes, I will not occupy your time, further than to say that the same general principle, namely, the adoption, at the earliest possible moment, of the simplest means that will permanently remove the deformity will hold good in all cases. As a rule we will not have so many obstacles to overcome in the remaining varieties of congenital talipes, as in the more common form of equino-varus.

Having thus roughly reviewed some of the past and present methods, I beg leave to report the following cases:

Lee E., residence, Yale, Michigan. Born Octobor 15, 1887, with talipes varo-equinus in both feet. The parents were instructed in the method of making hand-pressure, and with the aid of a simple retentive apparatus, made by a country blacksmith, they succeeded in almost completely removing the deformity in left foot, the whole course of treatment covering four years. Becoming discouraged with the opposite foot, it was permitted to relapse, or rather remain in a position of varo-equinus. I advised tenotomy, which was neglected till the child was five years old. On April 19, 1892, the child was put under the influence of chloroform, and after the usual aseptic precautions were taken, the tendo-ACHILLES was divided subcutaneously about an inch and a half above the point of its insertion. The equinus was corrected by forcible rupture of the posterior ligament of the ankle-joint. The tendon of the tibialis posticus was hooked up through an open wound and divided with the scissors. The tendons of the tibialis anticus, flexor longus pollicis, flexor longus digitorum and the plantar fascia were all divided subcutaneously. The greatest possible force that could be exerted with the hands of the operator was insufficient to bring the foot into proper position. Having satisfied myself that the point of resistance was in the long structure, I made an incision on the outer border of the foot and chiseled out a wedge-shaped piece of bone. No attempt was made to limit the operation to any particular bone or bones, but the tarsus was treated as one bone, the chisel extending through the long portion of the instep. The foot then easily dropped into perfect position and required no special force to retain it. After covering the wounds with aseptic dressing the foot was enveloped in a plaster of Paris cast. I have not seen this case since the operation, but I have the statement of the physician in whose care I left the patient, that the operation is very satisfactory to the parents and that the foot does not now give the boy the slightest inconvenience.

The next case that I wish to report is one of double congenital talipes equinovarus of severe type. James R., aged three years, residence, Port Huron. Tenotomy had been performed on one foot at the age of three months, and upon the opposite one at five months by different surgeons. Probably through some neglect on the part of the parents in the after-treatment, neither operation produced any permanent improvement. When he began to walk, the distortion became very much exaggerated, so that when he came under my observation at the age of three years, he was walking upon the dorsum of his feet, the toes being turned almost directly backwards. On March 15, 1892, I divided the tendo-ACHILLES subcutaneously, and corrected the equinus by forcibly rupturing the posterior ligament of the ankle-joint. The tendon of the tibialis posticus was hooked up through an open wound and divided with the scissors. The tendons of the tibialis anticus, flexor longus pollicis, flexor longus digitorum and the plantar fascia were all divided subcutaneously, after which the greatest force that could be exerted with the hands was only sufficient to bring the foot into a fair position. The foot was dressed with aseptic dressing and a plaster of Paris cast applied. This operation was performed at the child's home in Port Huron. On May 15, 1892, the patient was brought to my office in Detroit for the purpose of having an operation performed on the right foot. On examining the left foot I found that there was good movement in the ankle-joint, that the general contour of the foot was very fair, with the exception of a long prominence on its upper and outer border, but the toes were turned slightly inwards. The result of the operation was very gratifying to the parents, but to me it was not an ideal result. I therefore determined to try PHELPS' operation upon the right foot, which was accordingly done, in the manner described in a former part of this paper. When the operation was completed the foot fell easily into a good position and required no special force to retain it there. A plaster of Paris cast was applied and the patient returned home on the following day. There was a definite understanding with the parents that they should purchase a pair of SAYRE's shoes for the purpose of giving artificial support to the weakened muscles, which part of the contract was faithfully neglected. After the cast was removed nothing but an ordinary shoe was worn on the right foot. An elastic band was attached to the toe of the left shoe and the other end fastened to the outer border of the leg by means of a bandage. This very economical appliance did service in lieu of a SAYRE shoe. I had the privilege of examining this patient's feet about two years after the last operation. With the left foot nothing wrong was noticeable, with the exception, when he became careless in walking, of a tendency of the toe to turn inwards. When he wished to make an effort to do his best, his walk was quite natural. The last operation, as you will remember, was done after PHELPS' method and the result, I think, was as near an approach to an ideal one as the most fastidious surgeon could desire. The function of the foot was perfect in every respect. While the shoe remained on the foot no one could detect the slightest abnormality. When the shoe was removed nothing was noticeable with the exception of a small scar on the inner border of the foot and a somewhat elongated os calcis.

## THE DOCTOR IN POLITICS.*

BY FRANK S. HOUGH, M. D., DETROIT, MICHIGAN.

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I AM about to present to you a paper which may seem novel and somewhat out of place in this society, but since my object is to touch upon some important matters and questions vital to the medical body, I will proceed without further hesitation or excuse.

I will preface my paper by saying that the doctor, taken in the collective sense, is virtually a political nonentity, for although we have several physicians in Detroit actively interested in politics, the rank and file of physicians are not particularly concerned in the solution of problems calculated to affect medicine politically. Those in the profession who do nothing as a political factor are divided into three or four classes, and abstain from the exercise of their political influence for the several reasons and from the motives enumerated below.

By many in the medical profession the doctor in politics is treated with a certain contempt and thought to be some sort of monstrosity. Medicine and politics are supposed by them to be entirely incompatible, and they possess such lofty notions that the politician, whether he is a physician or not, is immeasurably beneath their notice, and regarded as one of those beings whose sole function in life is to pull strings for purely personal reasons, either for financial gain or notoriety. To them the politician is a human vulture without a soul and without honor, a necessary evil to be tolerated but scarcely countenanced. There are other physicians who have not such pronounced views upon the subject but who consider it unprofessional to dabble in politics, and do not wish to contaminate their immaculate characters by the associations with which they are bound to be brought into contact should they mix up with the vulgar horde of citizens and electors. Others again have not these scruples, but do not see the necessity of their doing anything beyond voting at an election and attending a mass meeting or two during a political campaign. Practitioners of lucrative and extensive practice have not in their estimation the time to give but a momentary consideration to politics.

*Read before the MICHIGAN SURGICAL AND PATHOLOGICAL SOCIETY, October 3, 1894.

In this manner you can readily see how it is that in a great state like Michigan we have so many abuses, so many obstacles in our path, so little protection to our interests, so many charlatans, quacks and empirics, and so few champions in our legislative bodies.

We are to-day working under a medical law bearing date of September 7, 1883, and which occupies so little space in the volume of Michigan laws as to take up but one or two pages of print. The conditions obtaining eleven years ago are not those of to-day. We are tenfold the number of that period, competition with quackery is ten times as great, and the laxity with which the law is enforced is notorious. The increase in circulation of our great daily newspapers gives the quack so much greater advantage over us that scientific methods and knowledge are at a greater discount than ever, and laws supposed to be for our good are simply a protection to quackery and a farce and delusion to the exponents of true medicine. Section 7 of a medical law entitled "An Act to Promote Public Health" reads as follows:

"Whoever advertises or holds himself out to the public as authorized to practice medicine or surgery in this state, when in fact he is not authorized under the provision of this act, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be liable to a fine of not less than five or *more* than fifty dollars for each offense."

This one provision, as far as I have been able to learn, is our sole and only weapon to parry and thrust back at our natural enemy. It reminds me of a pin on the end of a long stick in the hand of a DON QUIXOTE when engaged in a tourney with an adversary armed to the teeth and bristling with all kinds of weapons and defensive implements of warfare.

The pharmacy law in Michigan is efficient, and what is more to the point, is in active operation and the results are correspondingly good. Dentistry, which is merely a mechanical branch of general medicine and surgery is provided with good laws and a board of examiners. A would-be tooth extractor, who has not the necessary diploma, if caught at his nefarious work, can be sentenced for three months to jail, or fined one hundred dollars for the diversion of relieving some worthy yoeman of an offending molar, while an ignorant and unscrupulous quack is entitled to practice his experiments with powerful drugs and sharp knives upon a deluded public, with nothing to fear but a paltry fine ranging from five dollars to fifty should he be unfortunate enough to murder his patient or indiscrete enough to have aroused the jealousy or envy of some other quack across the street, who might turn informer for the sake of being master of the situation and having the field to himself.

A Detroit paper has, with its usual energetic, if not frantic, efforts to secure all the loose money in circulation, devised a scheme which, if its progenitors do not fail in their expectations, will make the regular practitioner march right into line and place a card in their advertising columns to the tune of twenty-four dollars per year, paid by the poor legitimate to secure recognition and enjoy the privilege of living. The scheme is as follows: the paper is to have a column devoted exclusively to the advertisements of regular practitioners. The canvasser informs you that he is *bound* to secure the advertisements of all the *prominent* and *reputable* physicians in the city and arrange them in order, either alphabetically, or in the order of merit that *he* deems most suitable to accomplish his ends. He tells you that he has *even now* the subscription of all the *leading* physicians of the city in his vest pocket. He *further* states that if *you* do not fall in with *his* diabolical plans, the *public*, which *of course* is guided entirely by the advertising editor of his particular newspaper, will infer that *you* are not eligible to appear among the notables by reason of denser ignorance and more lack of skill, or some want of the necessary qualifications entitling you to practice medicine legitimately. This paper intends to scrutinize your diploma with its omniscient eye and if the names upon it do not warrant its validity, or you have no diploma to place before the self-constituted medical examiner, *you* cannot, by any known means, get *your* name into its roll of honor. The newspaper representative informs you with the blandest kind of a smile upon his brazen cheek that he intends having *eminent* doctors write *long* articles upon the desirability, feasibility, and great advantages to be derived by this manner of bringing your names prominently before the citizens of Detroit. When asked why the paper, in its editorial capacity, does not recommend the scheme, without hiring *eminent physicians* to do its dirty work, the newspaper man seems horrified at your obtuseness and lack of business intellect.

"Why! that would be the direct means of causing all of the quacks to summarily withdraw their advertisements from the paper. The moneys derived from this source are the blood and very sinews of war to the modern newspaper. The revenue from the advertising spaces assigned to the parading before the credulous public of all sorts of nostrums and panaceas is simply immense, and *you*, surely, would not be unwise enough to *imagine* that the managers of our great dailies are ready to don their ascension robes and become saintly enough to deny themselves to such an extent?"

In the newspaper mind you are only a *secondary* consideration to be *occasionally* recognized when you *happen* to stand in with the reporter. Courtesy is not wanting in their attitude toward the quack. *He* is a far more important personage than *you*. If *you* will *humbly* subscribe for a space to exhibit your name, address and office hours, all well and good, but do not be *rash* enough to presume to expect precedence over the nostrum vender. Do not tread on *his* corns or you will at once lose what little respect the paper had for you before. Who those *eminent* physicians are that intend to prostitute their abilities by writing these articles for a money consideration, the paper representative does not say.

Excuse the digression, as it was for the purpose of showing, by way of illustration, what the doctor from his own negligence is responsible for in not taking an active interest in legislation affecting his honorable calling.

The counter-prescribing druggist is another sore that requires healing by legislative *ointment* or by the application of legislative *caustic*.

The midwife—profoundly unconscious of the anatomy and physiology of the pelvic organs—should be restrained from propagating and disseminating puerperal septicemia. True, if she were thrown out of employment, the expert gynecologist might find his occupation somewhat limited. He would have fewer cases of subinvolution, fewer results of peritonitis, and fewer cases of lacerated perineum to treat. Perhaps his favorite pastime of ovariotomy might be denied him to a certain degree, but he need not be downhearted, for he can console himself that the more ovaries he leaves *in situ* the greater number of females will be born for future generations of gynecologists.

I will not detail at further length the evil practices that surround us and limit our sphere of usefulness.

The League of Northern American Medical Colleges is doing a noble work in raising the standard of medical education and increasing the length of time requisite for the pursuing and obtaining of a medical education. Legislative restrictions might help in this matter also, but as long as the educational institutions are so deeply interested in this project the demand for legislative help is not imperative.

To sum up our needs concisely: we require such laws as will, first of all, consign **Mr. Quack** everlastingly to oblivion, and place such a baneful curse upon his calling as will hereafter discourage all efforts to resurrect him from innocuous desuetude; secondly, we need legislation governing the practice of midwifery, that a prominent obstetrician cannot again truthfully say as he did lately that only ten per cent. of the confinements of Detroit are presided over by physicians; thirdly, legislative interference should be directed against the quasi-doctors in the drug store.

There are a hundred other channels into which wise legislation might be turned to the benefit of the doctor and his avocation.

At this stage it might be pertinent to ask how these reforms may be accomplished? Concerted and concentrated effort on the part of the members of the medical fraternity is the only solution. Let the doctor get off of his high horse of professional altitude, take an active part in practical politics and the remedy will come. See that a doctor occasionally takes a seat in our state legislature, and if he has the tact and the courage he will make himself heard and felt.

To elect physicians to political position requires our attention and presence at the primaries—the caucuses and conventions—in order to secure nominations. This is a point that is lost sight of through the verdancy, in regard to politics, which characterizes the majority of physicians. It is much more important to place desirable men in nomination, if possible, on the several tickets than to pledge your support to such men as would otherwise be placed on the different tickets. A candidate in order to secure your vote may talk volubly about what *he* will do toward elevating your profession before the election, and if he is fortunate enough to secure a seat in the legislature he is almost sure to forget all about his ante-election promises through the press of other business more general in nature and about which he is more informed or has a better opportunity to display his forensic abilities. Special legislation always requires interested and enthusiastic advocates to secure its passage, and the enactment of class laws takes place more frequently when representatives of that class of individuals are present to personally superintend the successful prosecution of them. If you desire more medical laws you need physicians to frame them and insist upon their issuance.

Minnesota has a code of medical laws that reflects credit to the profession of that state. They have a board of examiners and no one is allowed to practice medicine unless he can prove his competency and the desirability of his becoming an acquisition. The direct effect of this is that there are fewer physicians but better qualified. The genuine article is in demand and protection is afforded not only to the public but to the profession and the respective members of it. Michigan, through its meager medical laws, is overburdened with all sorts of medical riffraff. It is the dumping ground for all the medical refuse and parasites to the profession. The long-haired fraternity of pilgrims find in Michigan their Mecca. Nondescript doctors, cancer doctors, faith-cure apostles, Christian (?) science sharks, Indian medicine men, root and herb fiends, jag-cure fakes, lost manhood restorers, and miscellaneous other kinds of sharpers and delusionists revel in pastures ever green, and ply their mercenary practices with impunity and profit in the state of Michigan. Barnum based his success upon the fact that "a fool is born every minute." For every fool born in Michigan a quack arrives in time to rob him and delude him.

The legislature is not the only place for representation, since the county and municipal affairs demand our attention. The office of coroner is an important one to the medical profession and should be always filled by a physician. Physicians should lend to our boards of health their moral and political support, in order to see that competent men are appointed to those places.

If the medical fraternity do not *dictate* by their political strength, manipulators will fill these positions with men not chosen for their superiority but for their pliability to their masters. Be *practical* in your politics if you wish to win. The best way to fight the devil is with fire. Do not spend your time theorizing or weighing the problems of silver and tariff to the exclusion of state and local questions. The doctor *in* politics is a power and can *dictate*; the doctor *out of* politics is the slave subsisting on the broken bits his master deigns to throw him after he has filled his capacious maw. It is not dishonorable to be a politician or a political candidate, if your purpose is honest and your methods above reproach. Because you see fit to become a candidate for school inspector or representative, is no sign that you are a drone to the profession and better out than in; on the contrary it shows your appreciation for the vital questions affecting the profession that you honor by your interest in its welfare.

I believe that the medical society is the place for topics of this nature since one of the functions of the society is to elevate the profession by promulgating doctrines concerned in the advancement and welfare of medicine.

## REPORT OF A CASE OF SUCCESSFUL OPERATION FOR SUBSTERNAL STRUMA, CAUSING DANGEROUS DYSPNEA.*

By F. MAASS, M. D., Detroit, Michigan.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

The struma which I bring before you to-night was extirpated by me three months ago. The patient is forty-four years of age, married, and the mother of several children. She had suffered for six or seven years from dyspnea, caused by a goitre that had made itself noticeable a long time ago. Different physicians were consulted but no treatment had been of any avail. In the course of time the dyspnea increased in severity, chronic diarrhea, irregular menstruation and extremely alarming nervous symptoms aggravated the case. When the patient was awake and perfectly at rest the respiration would be relatively easy; but any slight exertion, or her falling asleep, would result in an alarming attack of dyspnea. The patient was unable to sleep soundly for any considerable length of time, but she either herself woke up at short intervals or her family, becoming anxious on account of her condition, aroused her. During these short intervals of sleep the dyspnea developed to a dangerous degree. DOCTOR J. FLINTERMANN, who treated the patient the early part of May, 1894, after having failed to remove the symptoms by local applications of electricity, became convinced that the only relief in the case would be an extirpation of the tumor.

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* Read before the Detroit Medical and Library Association.

When, on the fourth day of July, 1894, I saw the patient for the first time, I observed that her face wore an anxious expression. She had a slight exophthalmos and a pulse of 120. Taking all these symptoms into consideration you will agree with me that an operation was most advisable. Every surgeon knows that when an extirpation of goitre is made early it is not a difficult or dangerous operation if one possesses the necessary skill and ability to control the hemorrhage; but when the goitre has existed for years there is often both danger and difficulty to be encountered in its removal. Since this case as mentioned above was one of the latter kind, I very carefully examined it before I decided upon an operation.

The tumor was not larger than a fist, presenting everywhere a tolerably soft consistence. The venous vessels running across its surface were enlarged to the size of the little finger. The swelling covered the interior part of the larynx. I thought that I could feel the lower border of the tumor distinctly separated from the upper margin of the sternum. The percussion note on the sternum, showing no abnormal character, seemed to corroborate my supposition that the growth did not extend in that direction. Pressure on the tumor in the antero-posterior direction did not increase the difficulty in breathing, but bilateral pressure did so immediately. This diagnosis having been made, it seemed most probable that the patient could be successfully operated upon. The only thing of which I was afraid was that perhaps there existed a flattened trachea on account of the increased dyspnea caused by lateral pressure.

On the 12th of July, with the kind assistance of DOCTORS FLINTERMANN and IMRIE, I performed the operation. DOCTOR IMRIE took care of the administration of the chloroform which, in spite of the dyspnea, was not followed by any unpleasant effect. It certainly demands a great deal of care and skill to administer chloroform in cases of this kind; for there is always the impression on one's mind that in case of threatening suffocation tracheotomy is out of the question. In such an emergency one is able to open the larynx only from above to introduce a long canula, constructed after PROFESSOR KOENIG's device, and try to push this instrument beyond the place of obstruction. In case any of the ladies or gentlemen present have not as yet seen KOENIG's instrument used for this purpose I have here a canula for inspection. Now I shall describe the operation proper: I made a semi-circular incision forming a flap with the base upward; by so doing the entire tumor was exposed. Then, using my fingers, instead of the knife, as far as possible, I worked my way and put double ligatures around all vessels before severing them.

Proceeding in this manner demands the utmost care, especially at points where large arteries enter at typical places from above and below. In this case, in spite of every precautionary appliance, a very profuse bleeding, which could hardly be controlled, took place. It bled from the whole surface of the wound, thus making it almost impossible for one to know where to apply the hemostatic forceps and ligature. When I had detached the left part and the superior lobe of the tumor, the patient had lost so much blood that I had grave apprehensions of her dying on the operating table. After detaching that part of the tumor which covered the larynx, I made a slight traction at its lower part, and, to my great surprise, succeeded in removing from behind the sternum a nodule the size of a hen's egg. The flow of blood stopped immediately, evidently because the pressure on the large venous vessels had been removed. The separation of the tumor so far exposed from the right, smaller part, was easy and followed by no bleeding. This smaller portion was not extirpated, in order to prevent myxedema—cachexia strumipriva. At the bottom of the wound there were visible the trachea and the large cervical vessels of the left side; but on the right side the latter were covered by the remaining part of the tumor. The trachea had not undergone any change in its size and form. Behind the sternum there was a cavity, corresponding in size to that of the removed part of the tumor. The length of time required for the operation was about one hour. The various preparations necessary in such a case, the slow manner in which we must proceed, and the many ligatures, explain how this amount of time was taken up. I did not unite the wound by means of sutures, but covered the same with an antiseptic compress. Operations, which are accompanied by a great loss of blood and take up so much time, do not guarantee absolute asepsis, and without sutures the wound is more easily accessible if infection should happen to take place. I considered the omission of applying sutures particularly indicated in this case because, with the accumulation of an extravasation in the cavity behind the sternum, a most favorable soil for the development of microörganisms was liable to form.

In this case the recovery was slow but not disturbed by any serious event, and the temperature never rose to a high degree. The cavity behind the sternum was nicely filled out by granulations, and the parts have now united so far as to have a scar not a great deal larger than the usual one seen in cases which have been joined by sutures. Since the operation the patient has had a quiet, normal respiration; the attacks of dyspnea have ceased entirely, and she enjoys a good, refreshing sleep. The pulse, which previous to the operation, had a frequency of 120, is now 80; exophthalmos has disappeared; the chronic diarrhea also; menstruation is regular and the patient's appetite is good. The almost imperceptible hoarseness with which she has been up to the present time afflicted proves that the inferior laryngeal nerve was neither severed nor severely injured when the tumor was extirpated. Often times it is impossible to avoid seriously injuring or even dividing this nerve, in which event intense hoarseness, sometimes developing into complete aphonia, results.

Concerning the medical treatment of goitre, I wish to make only a few remarks. The majority of goitre cases are treated by physicians. Iodide of potassium is the chief remedy prescribed; but the physician must be aware of the fact that, often in the beginning, the swelling increases in cases where this agent has been employed. It is therefore to be administered very carefully in all cases where dyspnea exists. If, in spite of this medical treatment, the dyspnea does not diminish, but on the contrary is on the increase, one should not hesitate to resort to surgical aid. There is another class of goitres which should be turned over to the surgeon also, that is, (1) old cases which suddenly increase in size; (2) goitres upon which hard spots, increasing rapidly in size, appear. For, in both these cases, the suspicion of malignant degeneration of the tumor is usually well founded.

The operation for the extirpation of goitre has recently been made with a great deal of success in **GRAVES'** disease. I had occasion, during the time that I was assistant surgeon to **PROFESSOR KOENIG**, to see such a case, in which an operation effected a radical cure. The danger of the operation is not always the same; however, if inoperable cases are left untouched, then very few cases will prove fatal. As far as I have been able to observe during my five years' stay in the University Hospital of Goettingen, where we had quite a number of goitre extirpations, not a single patient died from the results of thyreodectomy. **KOCHER**, of Bern, has published a series of two hundred and fifty cases with a mortality of two and one-half per cent. Amongst older publications of statistics is one in which a mortality of nineteen per cent. is mentioned.

Let me return once more to my particular case. As has been mentioned above, there were present exophthalmos, frequent pulse and struma—the three cardinal symptoms of **GRAVES'** disease. But, in spite of these cardinal symptoms, I do not consider it to be a genuine case of this disease, for very seldom do we meet with such a large swelling of the thyroid gland in a case of **GRAVES'** disease. The exophthalmos was very likely dependent upon the stagnation of the blood in the veins of the head, extending to the orbital vessels, whereby the bulbus was pushed forward into prominence. The frequency of the pulse is explained by the great anxiety experienced from the attacks of dyspnea. I know very well that my view of the symptoms in this case is subject to doubt. It is very interesting to note, however, that immediately after the operation the chronic diarrhea and disturbance of menstruation entirely disappeared.

I now present you the tumor. That part which was situated behind the sternum is indicated by the red ligature. On the dorsal surface there is a deep groove, a perfect cast of the trachea, from which you can readily imagine that a further growth of the tumor backward would finally have compressed this tube. The cuts which I made through several parts of the tumor differ from one another in microscopical appearance. The superior part of the same presents large cavities with contents of a crumbling nature. The section of the front surface of the tumor presents a solid substance of a grayish-white color. That part which was behind the sternum, judging from the shrinkage while it has been preserved in alcohol, seems to be cystic in character. Colloid degeneration, in a limited degree, is only present in the walls of the cysts in the upper portion. This colloid substance, having become very hard from immersion in absolute alcohol, it is very difficult to get a proper slide prepared of it without a microtome. I am, therefore, unable to present one to-night. Of the gray, solid substance, I would like to show you three sections. Microscope number one presents a spot mainly consisting of gland tissue with only few nuclei in a large mass of connective tissue. Microscope number two shows very little gland tissue with only few nuclei in a large mass of connective tissue. Microscope number three shows connective tissue with scarcely any nuclei. In some parts of the specimen are cavities containing detritus. The pathological process in the specimens under the microscopes seems to me to have been first a hypertrophy of the gland tissue with which was combined, in the course of time, an increase in the growth of connective tissue, as illustrated by the abundance of nuclei in the specimen under microscope number one. The growth of the connective tissue gradually surpassed that of the glandular tissue. As the newly developed connective tissue became harder, adopting the character of cicatricial tissue, the soft gland cells became compressed and obliterated, leaving finally only connective tissue with no nuclei whatever.

I further present under microscopes number four and five examples of true cystic-colloid struma and of sarcomatous struma, which I had in my collection. By these you will be able to make comparison of the nature of different pathological degenerations of the thyroid gland.

# LECTURES.

## PROLONGED HYPERPYREXIAL SCARLATINA.

By C. TALAMON, M. D., Paris, France.
PHYSICIAN TO BICHAT HOSPITAL; EDITOR OF LA MEDICINE MODERNE, ET CETERA.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

The malignant forms of scarlet fever are best known in England. In France, when it assumes a threatening aspect it is generally due to secondary complications, either in the throat, kidneys or the serous membranes. Of itself, the virus of scarlatina would seem to be less active in France than with our neighbors in England, and we may ask ourselves whether this fact depends upon the relative attenuation of the virus, or whether it is a question of difference of race? Can it be true that the Japanese are quite refractory to the microörganism of scarlatina?—refractory to such a point that an American physician has inoculated the blood of a Japanese as a preventive measure in patients to prevent the development of the malady. However it may be with this question, we are scarcely justified in making use of such suggestions even in malignant scarlatina, which, as we say, is exceptional in Paris.

Our authors under "Primitively Malignant Forms" only speak of the nervous variety, with rapid and fatal hyperpyrexia, analogous in many respects to hyperpyrexial cerebral rheumatism. **Bouveret**, of Lyons, has recently published three observations of secondary hyperpyrexia occurring on the ninth or tenth day of the disease, after the disappearance of the exanthema and the commencement of defervescence. The temperature rising rapidly to 41° centigrade, or higher, and producing nervous symptoms of the most serious import, intense pain, restlessness, delirium, somnolence and incipient coma. These cases, which **Bouveret** distinguishes from the ataxic hyperpyrexias of the eruptive period, must not in virtue of their greater gravity, be confounded with the cases described by **Thomas** and **Gumprecht**, under the name of "secondary fever of scarlatina." In the German authors' cases, fever persisted beyond its ordinary term for eight, twelve or fifteen days, but without hyperpyrexia in the regular sense or of duration. No complication explains this fever, which, according to **Gumprecht**, would probably be due to the infection by streptococci from the bowels.

The following cases which we observed, in common with one of our colleagues, does not come under any of the preceding headings. It differs from the last by the early advent of hyperpyrexia, and its appearance when the exanthema began to disappear, and from other cases, in that it continued to about the eighteenth day, when it only yielded to the influence of the cold baths.

Madame X., aged twenty-eight, furnishes a remarkable medical history, having signs of complete recovery from incipient phthisis with hemoptysis.

May 31 to June 5, she developed scarlet fever, with a persistent high fever of 40.8° centigrade, albumen, restlessness, insomnia.

June 6: The eruption fades, but symptoms and temperature persist, although she is taking fifteen grains of quinine a day.

June 7 to 8: Evening pulse was 140, fetal rhythm of heart, temperature 40°.5 centigrade. Gave caffein fifteen grains and infusion of digitalis three grams. No heart or lung signs on auscultation. Cold affusions ordered.

June 9 to 15: Insomnia persists, but less restlessness and delirium, temperature only now falling to 38.8°, after repeated cold affusions. Albumin gone.

June 15 to 17: No marked complications and yet condition more serious. Violent restlessness, maximum temperature now 40.6°. Ordered a cold bath of quarter of an hour to be given every three hours.

June 18 to 23: Under the influence of baths temperature falls to 39° in the evening, and other threatening symptoms subside.

June 24 to July 12: Desquamation completed and convalescence uninterrupted.

These notes show that the disease assumed at once a most serious aspect. The temperature rose rapidly to 40° (104° Fahrenheit) and on the sixth day, when under ordinary circumstances a remission takes place, it reached 41° (105.8°), being accompanied by restlessness, violent delirium, and a grave adynamic condition, and this without any localized complication, for the throat showed no abnormal inflammation nor exudation of any kind, nor could some slight and temporary pains in the wrist be attributed to scarlatinal rheumatism. The sudden relapse on the fifteenth day turned our attention to signs of congestion in the left lung, and to cardiac murmurs, developed so often. If, in spite of the manifest disproportion between the pulmonary and cardiac signs, and the intense general symptoms, the latter had been caused by specific congestion or pericarditis, as was suggested, both were disproved by the immediate benefit derived from the cold bathing.

From one point of view our observation approaches the cases described by Professor Jaccoud, under the name "*forme typhique*," though the resemblance fails in the length of the disease, in the absence of diarrhea, vomiting and other complications which obtain in the "*forme typhique*." Lastly, there is the essential difference that in our case persistent and prolonged hyperpyrexia was the prime factor throughout and constituted itself the only danger.

The smallness and feebleness of the pulse developed in our patient, together with the tachycardia and fetal cardiac rhythm could no more be attributed to myocarditis, than the delirium, restlessness and stupor could be supposed to proceed from a cerebral lesion: both were the direct result of hyperpyrexia.

This is the essential point to observe, the one that should guide the physician in the treatment of this grave form of scarlatina. This treatment should be directed exclusively against the high temperature, and should consist in the use of cold baths, or cold water applied in other form, such as a simple lotion in bed, cold affusions, as used by Currie and Trousseau, or in baths given systematically according to Brandt's, method. By the force of circumstances, and because of the opposition shown by the patient's family, we had recourse to all these methods and were able to observe their respective value. The simple lotions only produced temporary comfort without influencing the temperature. The effect of the cold affusions was more marked. Under their influence the fever was reduced 1° centigrade, and for some days was maintained between 39° and 40° as compared to 40° to 41° the previous days. But they could not control the tendency to hyperpyrexia, their favorable effect lasting only for a time, for the temperature exceeded 40° by some fractions at the end of five days. Cold baths alone succeeded in restraining the fever. Under these, given every three hours, the fall of temperature was progressive and continuous. From the first day the fever fell from 40.4° to 40° in the evening; the next day to 39.5°, the third day to 39°, the fourth day to less, and in five days it fell, in all, from 40.4° to 38.4°, while there was a decrease in all symptoms. In spite of the dangers that might have been anticipated in the first place from the history of previous tuberculosis, and the presence of congestion in the base of the left lung, and secondly, from the condition of the morbid imminence of the kidneys, which obtains so often in scarlet fever, not only was there no sign of pulmonary aggravation or renal trouble, but the slight congestion at the base of the lung cleared up under these cold baths and the renewal of renal activity was shown by the passage of three quarts of urine in the twenty-four hours. Cold baths indeed may be said to have literally resuscitated this patient, and we are convinced that had we been permitted to employ them sooner, we would have obtained during the early days of the treatment, the same result that we procured after two weeks illness.

The conclusions that may be drawn from this case are summed up as follows: (1) There is a form of scarlatinal infection that may be called prolonged hyperpyrexial scarlatina, characterized by the early and long continuance of high temperature. (2) The intensity and persistence of fever are not connected with any appreciable local lesion or complication. (3) Hyperpyrexia is the essential element, and constitutes the only danger of this form of scarlatina. (4) Cold lotions and affusions are insufficient palliatives against this hyperpyrexia, and the only thorough treatment is the systematic use of cold baths given according to Brandt's method every three hours, until the temperature is definitely lowered to 39° centigrade, (102° Fahrenheit).

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, SEPTEMBER 24, 1894.

The President, JOHN FLINTERMANN, M. D., in the Chair.

### EXHIBITION OF PATIENTS.

**Doctor Ayers** exhibited a woman sixty-five years of age who, a year and a half ago, began to have a symmetrical enlargement of both legs. Three weeks ago she came under the doctor's care for ulceration of the left foot. The doctor considered the case to be one of elephantiasis.

Doctor Carstens: I certainly consider the case one of elephantiasis. In regard to the treatment I should say that the results would not be very promising. Something perhaps might be done by elevation and pressure.

## DISCUSSION OF PAPERS.

Doctor Biddle read a paper on "Infantile Eczema, Especially in Its Relation to the Infant's Face." (See The Physician and Surgeon for October).

Doctor Jennings: The author of the paper has discussed part of the subject of eczema very thoroughly. With regard to the symptoms there is little room for discussion. The question of etiology is more open for discussion, but I can add but little to, or criticise but little of, what has been said in the paper. That eczema is more frequent in children than in adults shows that the cutaneous sensibility of young tissues is a prominent causative factor. I am not inclined to look upon the infection as a constitutional disorder. Some individuals have a peculiar type of nutrition of the skin; some respond to external influences and to reflex irritations, as, for example, those coming from the abdomen or from a contracted prepuce. Eczema of teething is undoubtedly reflex in its origin. In general I should look upon the disease as having a local exacting cause. The fact that the infant in utero does not have eczema confirms this theory. I hope that the doctor will at some future date continue his paper and give us his ideas in regard to the therapeutics. I think that the pus coccus is a secondary feature in the disease, as the skin in eczema is a favorable culture plate. However, this is a subject for experiment and not for argument.

Doctor Longyear: I used to see a great many cases of infantile eczema when I was in general practice, but they usually disappeared with the cutting of the first teeth. However, there were many relapses. For that reason I should consider that one of the important points in its causation is the nervous irritation arising from the cutting of the teeth. There were no relapses after the teeth were all out.

Doctor Douglas: I have been much interested in the paper and in the discussion, and am impressed with the multitudinous features which would be contained in a complete treatise on eczema. The subject of its origin is interesting, and yet intricate to most practitioners who generally are in doubt as to its cause, and hence to its treatment. The remarks in regard to teething as a positive factor are entitled to great consideration. It is a question whether the irritation is direct or acts indirectly through disturbance of the intestinal tract. My impression is that if dentition is one of the prime factors it acts through disturbance of the digestive process. Careful regulation of the digestive function will often give the foundation of cure. The disturbance is generally traceable to an overcrowded organ and to improper food. My impression is that the disease usually occurs during the first two years of the child's life. It is a disease that we are not usually anxious to treat. Careful diet and the most gentle of external applications has given the best results.

Doctor Robbins; The paper was one of great thoroughness, especially in regard to pathology. Those cases which have come under my care are either those from the very poor class, such as we meet in dispensary practice, or those who in wealthy families have had unusual care—and over-use of soap and water. I have seen more cases in children from one to two months old than at any other age. The constitutional causes in many cases are very pronounced. Most of the cases in private practice are readily cured if seen early, while the disease is still, as it were, in the acute stage. Dispensary cases, from the fact that they have been long neglected, and hence have become chronic, are difficult to cure.

**Doctor Sherrill**: There are three popular sayings which come to my mind in regard to eczema: first, it is not best to treat the disease as it may strike in; second, it is good for the child as the bad comes out; third, the majority of cases recover after getting their teeth. During teething there is diverted nutrition, and hence impaired vitality. It is very interesting to note the derangements of the stomach and their relation to certain diseases. In order to secure a cure it is necessary to bring about a proper reaction of the fluids of the stomach. While many plump infants have eczema we find on close inspection that their tissues are not really of the best vitality.

**Doctor Longyear**; If I may be permitted to speak again, this remark about the striking in of the disease recalls to my mind a case of a little girl eight years old. She had always had the trouble, and had undergone treatment from many doctors. After taking a number of sulphur baths, she was apparently cured, no spots appearing for several weeks. She then began to have bowel trouble and passed blood per rectum. This dysentery became better, and then there was manifested an irritation of the bladder and blood was passed with the urine. This continued and the child became much worse. It was decided to simulate the eruption by irritation with croton oil and iodine. This produced a fine eruption which was succeeded by the characteristic eczema. As soon as this appeared the child began to improve and was soon entirely recovered from its intestinal troubles.

**Doctor Biddle**: I would thank the gentlemen for their complimentary allusions to my paper. I would adhere to my point that eczema generally has a constitutional basis. In my experience there are many cases which do not get well after teething is finished. In regard to the disease striking in, such a thing does not seem possible. Reference to this subject, though, reminds me of the relation I have noticed between vaccination and eczema; some cases get well after being vaccinated, and some cases develop after inoculation with the virus. In conclusion I would again thank the gentlemen for their kind discussion of my paper.

P. M. Hickey, M. D., Secretary.

## ANNUAL MEETING OCTOBER 1, 1894.

The President, JOHN FLINTERMANN, M. D., in the Chair.

The annual meeting was held October 1, 1894. The Secretary's report for the year was read, accepted, and placed on file, and that officer thanked for his work during the past year. The Treasurer's report was accepted and placed on file. **Doctor Longyear**, as chairman of the Advisory Council, made a verbal report. The reports of the Publication Committee and the Finance Committee were read and ordered filed. The Library Committee, through **Doctor Miner**, made a verbal report.

**Doctor Mulheron** nominated **Doctor Eugene Smith** for President. Seconded by **Doctor Shurly**. **Doctor Donald Maclean** moved that the Secretary cast the unanimous ballot for **Doctor Eugene Smith** as President. Carried.

**Doctor Jennings** nominated **Doctor Luther S. Harvey** for Secretary. **Doctor Tappey** moved that the Secretary cast the ballot of the society for **Doctor Harvey** as Secretary. Carried.

**Doctor Smith** made a short speech in acceptance of the office of President. **Doctor Flintermann**, as retiring president, delivered a very interesting and able address.

**Doctor Sherrill** moved that the society tender its congratulations to **Doctor Carstens** on account of his recent election to the presidency of the Society of American Obstetricians and Gynecologists. Carried. The resignation of **Doctor Lyster** was read. It was moved that his name be placed upon the roll of honorary members, and that it be erased at his request from that of active membership. Carried.

**Luther S. Harvey**, M. D., Secretary.

## STATED MEETING, OCTOBER 8, 1894.

The President, EUGENE SMITH, M. D., in the Chair.

### EXHIBITION OF SPECIMENS.

**Doctor Longyear** exhibited a uterus with carcinoma of the cervix which he had removed by vaginal hysterectomy. He called especial attention to the small size of the Fallopian tubes in their normal condition. He considered that cases in which the tubes could be drained by probing were exceedingly rare. He did not consider that method of treatment practical.

### REPORTS OF CASES.

**Doctor Tappey** reported a case of abdominal adhesions. Upon operation he had found the vermiform appendix adherent to the right ovary. The appendix was found congested and was removed. He called attention to the frequency of abdominal troubles caused by adhesions, and said we would do well to interfere in cases of persistent pain in the abdomen not reached by drugs.

**Doctor McGraw** reported a case of idiopathic gangrene of the left hand and arm. The patient had first complained of a numbness in the fingers of the left hand. The numbness became intensified and the hand began to turn black. It took the form of dry gangrene, and spots appeared on the under surface of the arm. The arm was amputated. The incision was made at the level of the lower border of the axilla. The brachial artery was found plugged above the incision. The artery below the point of incision was not plugged but was empty. The thrombus found was comparatively small and did not offer sufficient explanation of the trouble. Collateral circulation should have been established. He concluded that there must have been some nervous trouble which prevented sufficient dilatation of the arteries.

**Doctor Tibbals** reported a case of poisoning from aniline from printer's ink. The case was a man employed as ruler in a printing establishment, whose hands were constantly stained with ink. Any slight blow on any part of the body was followed immediately by the appearance of a large wheal.

### DISCUSSION OF PAPERS.

**Doctor Carl Bonning** read a paper entitled "The Medical and Surgical Treatment of Appendicitis. (See page 481).

**Doctor McGraw**: There is difficulty in diagnosis, as between appendicitis and gall-stone where the gall-bladder is found low down. Appendicitis is frequently mistaken for typhoid fever and typhoid fever for appendicitis. I have seen cases of apparent appendicitis in which the appendix was not affected, but breaking up adhesions caused cessation of the trouble. In patients coming from a distance it is difficult to tell when the acute symptoms have disappeared. Where there is persistent trouble, even when the diagnosis is not positive, it is right to operate to break up the adhesions. Pressure should not be put upon the surgeon always to take out the appendix. Where you find a large abscess, and find the appendix buried in the wall, it should not be disturbed on account of the great danger to the patient—the danger of septicemia resulting from a rupture of the wall of the abscess. In such cases it is not good surgery to remove the appendix. The rule should be to operate, but many exceptions to the rule should be taken into consideration.

Doctor J. B. Newman: I would like to ask if the early operation is always attended with good results?

Doctor McGraw: The removal of the appendix does not always prevent further trouble. Trouble may recur; adhesions may result. It is too early at this date, to say what the general result of the operation may be. We do not know what troubles may arise as a result of these operations.

Doctor Carstens: I agree with Doctor Bonning in the case of diagnosis. The symptoms of typhoid fever are so entirely different that it would be a queer case of typhoid fever that would be mistaken for appendicitis. Richardson, in one hundred and eighty-one cases, made only five mistakes in diagnosis. The cause of the trouble is not easily found. The appendix should be carefully examined, even when it appears healthy. It is impossible to save the patient after the abscess breaks into the abdominal cavity. Out of a hundred cases seventy-five would recover without an operation. If we operate within twenty-four hours we save ninety-five per cent. Fifteen or twenty per cent. of those who recover without operation would escape without a second attack. I agree with Doctor McGraw that it is bad practice to look for the appendix. The diagnosis is easy. Where mistakes are made, there is present some other serious trouble requiring abdominal section.

Doctor Longyear: I concur in the views of Doctor Carstens. I desire to compliment the author of the paper, and I think more papers of this kind from the general practitioner would be very acceptable.

Doctor Collins: I am glad to hear advanced the advisability of waiting until a firm wall should be established about the abscess. I recall a case in which, in my opinion, the patient was lost by operating too soon.

Doctor McGraw: I am not in favor of waiting when pus is once formed. In many cases we do not get a firm wall at all. I do not think the danger of general peritoneal infection is great. I believe in early operations, and wish to congratulate Doctor Bonning on the firm expression of his views.

Doctor Tibbals reported a case showing the difficulty in diagnosis between typhoid fever and appendicitis.

Doctor Bonning in closing the discussion said he thought that no rule could be laid down concerning the time of operating. Every case should be judged for itself.

Luther S. Harvey, M. D., Secretary.

# EDITORIAL ARTICLES.

## DEATH DURING HYPNOSIS.

**There** is no good reason for believing that hypnotized persons should not be as subject to causes of sudden death as the rest of mankind. That no death has occurred in hypnosis until the present time, is in fact far more remarkable than that a person should at length have succumbed. The case of **Ella Salamon**, who recently died in Hungary, while in a condition of hypnosis at the hands of an operator named **Neukomm**, is interesting in more ways than one. **Mr. Neukomm** hypnotized **Ella**, and then suggested that she give a clairvoyant description of his brother's illness and present condition. This was done very satisfactorily, the lesions in the lungs were described with accuracy, the subject meanwhile displaying great emotion. The operator then asked for the prognosis, and **Ella** fell to the floor and died. The autopsy revealed acute anemia of the brain, and death was considered due to syncope and heart failure.

This is the first report of a case of death under hypnosis. There seems little in the account of it that can lead us to attribute the result to the hypnosis, or any direct suggestion of the hypnotist. That the subject should have proved herself sensitive to the emotion of fright, is not astonishing; that fright should have had fatal termination in one unusually debilitated is not surprising. Neither is there anything in this to contraindicate the legitimate use of hypnotism for therapeutical purposes. It does, however, show the dangers that may pertain to hypnotists and fakirs who give improper suggestions. It was not long since in a stage-performance that an operator gave a suggestion to his subject that he was in hell. It needs no death from hypnotism to assure us that such cruel and inhuman conduct should be visited with every penalty that can be imposed.

## THE BACTERIOLOGY OF DIPHTHERIA.

**The** report made by **Doctor Welch**, of the American Committee on Diphtheria to the Eighth International Congress of Hygiene, condenses in convenient form the conclusions arrived at regarding the part played by bacteriology in the etiology of diphtheria. The report is based upon the work of well-known investigators, and largely upon an examination of nearly six thousand cases of suspected diphtheria, by the health department of New York city. The result of this system of examining every suspected case of diphtheria has not only been the practical one of controlling the supervision and isolation of infected cases, but has also yielded valuable material for scientific inductions of some significance. Out of six thousand one hundred and fifty-six examinations of suspected cases fifty-eight per cent. were proved to be diphtheria. At least eighty per cent. of cases of membraneous croup were diphtheritic, due to the presence of the **Loeffler** bacillus, so that an overwhelming proportion of cases of pseudo-membraneous diseases of the throat and air-passages are diphtheritic. In New York, during the year covered by the report four hundred and eight cases of pseudo-diphtheria occurred, that is to say, cases of pseudo-membraneous inflammation of the throat and air passages not caused by **Loeffler** bacilli. The most common organism in this disease was proved to be the streptococcus pyogenes.

Bacteriological investigation has also proved that atypical forms of diphtheria are not infrequent. Diphtheria may occur without any membrane, and as an angina of mild character. A case of acute hyperemia of the mucous membrane in which LOEFFLER bacilli are present is to be regarded as truly diphtheria as one with membraneous complications.

That the bacilli may exist without causing any membraneous disease is again exemplified in the examination of fourteen families with forty-eight children, which showed diphtheria bacilli in fifty per cent. of the children. Forty per cent. of these later developed the disease.

Recent investigations have also demonstrated the existence of a pseudo-diphtheria bacillus. This must not be confounded with the bacilli causing pseudo-membraneous angina, of which the streptococcus pyogenes is the chief. The pseudo-diphtheria bacillus in morphology in no wise differs from LOEFFLER's bacillus. It is, however, known to be different by its non-pathogenic effects, and by its cultural reactions. The production of acid in culture bouillon will henceforth be necessary for the differentiation of the LOEFFLER bacillus from its non-virulent congener. That there may be two forms of the LOEFFLER bacillus is inferred analogically by the virulence of the aerobic and anaerobic forms of other bacteria.

The methods in vogue in the New York Health Department have contributed vastly to efficient public hygiene, and should be imitated by every city in the land. The distressing misunderstandings that not infrequently arise between physicians and health authorities, from inability to estimate the true character of membraneous and pseudo-membraneous diseases, are practically done away with. The profession is aided in accurate diagnosis, and the dangers of the infective period being correctly estimated, liability to grave epidemic is measurably averted.

## EDITORIAL BREVITIES.

### ANTITOXINE.

THERE is as yet no sufficient data for forming a reliable opinion upon antitoxine. The accounts from abroad, and especially from Germany, are very encouraging, and the reports read almost as well as the first reports regarding tuberculin. The promulgations of German laboratories, are often characterized by hasty idealizing, It is probably safest just at present to temper our hopes with words of the counselor, "Blessed is he that expecteth nothing, for he shall not be disappointed."

### WHAT SORT OF DOCTORS DID THEY HAVE ?

IN the laws of Virginia enacted at a grand assembly in James City, March 23, 1662, is found one dealing with the medical profession. The profession frequently reproaches itself for its black sheep, but in those "good old times" things do not appear to have been just as they should. The ninety-second law thus reads: "Whereas, the excessive and immoderate Prices exacted by divers avaritious and griping practitioners in Physic and Chirurgery, hath caused several hard-hearted masters swayed by profitable, more than charitable, respects, rather to expose a sick servant to a hazard of recovery, than put themselves to the certain charge of a rigorous, though unskilful physician; whose demand for the most part exceedeth the purchase of the patient; many other poor people also being forced to give themselves over to a lingering disease, rather than ruin themselves by endeavoring to procure an uncertain remedy; Be it enacted, That it shall be lawful for any person or persons conceiving the Account of the Physician or Chirurgeon unreasonable, to arrest the said Physician or Chirurgeon to the General or County Court, where the Physician or Chirurgeon shall declare upon his oath, the true Value, Cost and Quantity of the Drugs administered; for which the Court shall grant order against the Plaintiff with fifty per cent. advance, and such consideration for his Cure, Visit and Attendance as they shall judge he hath deserved; and if it shall appear by Evidence that the said Physician and Chirurgeon hath neglected his Patient while he was under his Cure, the Court shall censure him to pay so much as they in their discretion shall think reasonable."

## THE TREATMENT OF GONORRHEA.

THIS is how gonorrhea is to be treated in the future if the suggestions of DOCTOR BURNSIDE FOSTER in a recent issue of *The Journal of Cutaneous and Genito-Urinary Diseases* are adopted: "As soon as may be after we have established the diagnosis of a first gonorrhea, the patient should be etherized and properly prepared; a buttonhole opening made in the perineum, and drainage of the bladder established. Through a properly contrived apparatus the anterior urethra could then be thoroughly flushed with any antiseptic or cleansing fluid and treated on surgical principles. The details of the local treatment would vary with the fancy of the operator. The feasibility of packing and distending the anterior urethra with iodoform gauze suggests itself to me; but any one of a great number of methods would, doubtless, be efficacious." Some surgeons cannot be accused of desiring surgery to be other than heroic.

## THE HISTORY OF MEDICINE.

DOCTOR ROSWELL PARK, of Buffalo, New York, will deliver a course of ten lectures on this subject at the medical department of the University of Buffalo. The talks will embrace political, religious, philosophic and other issues which have figured in the progress of the medical sciences. This innovation is really commendable. The Physician and Surgeon long since urged the necessity for including natural history in the curricula of medical colleges, and certainly medical history is a more important study, and one that should be taught in every college in this country. *The Medical Fortnightly* discusses this matter in the following strain: "In this utilitarian age, when business men run after money, and professional men chase after fame, we are unmindful of the debt which we owe to our forefathers. In the medical colleges of this country, practically no attention is paid to the history of our profession. Men who rank high in skill and intelligence are absolutely ignorant of the essential facts concerning the rise and development of that profession which they practice with such honor to themselves and such benefit to the public. This should not be. In all the great medical universities of Europe instruction is given in medical history, and the student, when graduated therefrom, possesses a fund of information which, while adding polish to an excellent medical education, in nowise renders its possessor less practical. Professors of anatomy talk about the valve of Vieussens; the triangle of Scarpa; the ligament of Gimbernat; the press (torcular) of Herophilus; the tube of Eustachius; the canal of Fallopius; the glands of Naboth and of Meibomius; the bodies (corpora) of Arantius; the patches of Peyer; the canals of Havers, Hunter, Hugier, Nuck, Petit, Stilling or Vidius; the cells of Schultze; the corpuscles of Malpighi or Pacini; the organ of Corti; the duct of Bartholinus, Cowper, Steno or Wharton; the fissure of Rolando, or of Sylvius; the foramen of Monro, or of Magendie; the ganglion of Andersch, Arnold, Gasser, Meckel or Wrisberg; the island of Reil; the line of Nélaton; the membrane of Demours, Descemet, Henle, Jacob, Krause, Reissner, or Schneider; the mountain (mons) of Venus; the nerve of Arnold, Jacobson, or Vidius; the vesicles of De Graaf; the bodies of Pacchioni; the plexus of Meissner; the pyramids of Ferrein; the circle of Willis; the spot of Wagner; or the bones of Wormius—yet how many teachers of anatomy are familiar with the lives of the men for whom these parts have been named? Familiarity with the lives and struggles of the fathers of medicine enables the anatomist to create, in the minds of his class, renewed interest in the details of anatomical science. In this respect, what is true of anatomy applies with equal force to chemistry, surgery, obstetrics—in fact to the whole range of medical sciences." There are only three schools in the United States that teach this subject, and as a consequence the majority of the profession know little of the real discoverers in medical science. This deplorable condition might be obviated in future by teaching less technical tomfoolery during the medical course and devoting more attention to the history and practice of medicine. The Professor of the History of Medicine should be conscientious, cultivated, and courageous, ever alert to thwart the claims of ambitions presudo-scientists who aspire to build fame on fallacious foundations.

## MEDICAL NEWS.

### THE RESIGNATION OF DEAN OBETZ.

The last scene in the drama which has for some time occupied the boards in the homeopathic department of the University of Michigan was enacted recently by Doctor Obetz presenting the following resignation to the Board of Regents: "To the Honorable Board of Regents:—*Gentlemen*—I have been connected with the University twelve years and so far have always had the confidence and unanimous support of your honorable board and the officers of the institution. I have always endeavored to do my duty as a professor and dean of the department. Further, I have done my duty as a University man and have always supported the policy laid down by the regents and president at all times and in every way it lay in my power so to do. In so doing I have encountered the enmity of some of my colleagues, who believe that they and not the University authorities, should control the homeopathic college. I am thankful to the regents for the unqualified vindication given me at their last meeting. And having received a vindication at every point at issue, I am now at liberty to show better than ever before my loyalty to the board and university. Not wishing to embarrass your honorable body in any way, I hereby tender my resignation as Dean of the department and Professor of Surgery. Respectfully, H. L. Obetz." The original cause of the unpleasantness in this school was a desire on the part of Doctor Obetz to consolidate the two medical departments. Some members of the Hahnemannic faculty objected to this on the ground that it would destroy the identity of homeopathy. They appealed to the State Society to take their dean in hand, and he was summarily expelled from this body for entertaining false doctrine. The Society then memorialized the Board of Regents to request the resignation of Doctor Obetz, but this august body heeded not the prayer of the petitioners. At this juncture the American Institute of Homeopathy shied its castor into the ring and demanded that the offensive dean be forthwith deposed. The Regents still declined to comply with the request. Doctor Obetz having emerged from this contest supported by the Board of Regents and the students of his school, the time was a propitious one for him to resign. The scheme for consolidation had many points favoring adoption, but its fate is sealed for the present by the retirement of its projector. Since the commencement of this fight the students in the homeopathic school have dwindled from seventy to eighteen and what will become of the department remains a conjecture. After listening to the reading of Doctor Obetz resignation a regent moved that "for the purpose of thorough reorganization of the homeopathic school, the remaining members of that faculty be asked to place their resignations in the hands of the board, to take effect October 1, next, if, in the opinion of the board it be then desirable. The motion was referred to the medical committee.

## BRONZE STATUE OF THE LATE DOCTOR J. MARION SIMS.

The unvailing of the statue of this eminent physician and philanthropist occurred in Bryant Park, New York city, on October 20. Addresses were delivered by Doctors George F. Shrady, and Paul F. Mundé, the father of modern gynecology being eulogized in glowing terms. The project of erecting a statue was inaugurated about ten years ago, the late Doctor Fordyce Barker officiating as chairman of the committee entrusted with the execution of the work. Contributions were received from members of the profession and laity throughout the world, and consisted, for the greater part, of one dollar each. This is the first statue of its kind erected in this country. The inscription on one side is as follows: "Presented to the city of New York by his professional friends, loving patients, and many admirers throughout the world." On the other side is the following:

J. Marion Sims, M. D., LL. D.,
Born in South Carolina, 1813.
Died in New York City, 1883.
Surgeon and Philanthropist.
Founder of the Woman's Hospital, State of New York.
His brilliant achievements carried the fame of
American Surgery
Throughout the Civilized World.
In recognition of his services in the cause of
Science and Mankind
He received the highest honor in the city of his countrymen,
And decorations from the Governments of
France, Portugal, Spain, Belgium, and Italy.

The statue was executed by Müller, of Munich, is of bronze, in full length, and of heroic proportions, and stands on a pedestal of brown granite.

## DEATH OF DOCTOR WILLIAM GOODELL.

THE demise of this eminent gynecologist occurred on October 27. Doctor Goodell was born at Malta sixty-five years ago, his father being a missionary. He was educated in this country, graduated from Williams College, Massachusetts, in 1849, and from Jefferson Medical College, Philadelphia, in 1854. He began the practice of medicine in Constantinople, but returned to this country after a few years and settled in West Chester, Pennsylvania. Meeting with meagre success as a general practitioner he resolved to come West, and had his effects packed for shipment to Kansas when, in 1865, he received the appointment to Preston Retreat in Philadelphia, which position he held for twenty years. In 1870 he was elected lecturer on Obstetrics and Diseases of Women in the University of Pennsylvânia, and in 1874 he was made clinical professor of the Diseases of Women and Children in this school, continuing to occupy this chair for about eighteen years. The doctor was honorary professor of gynecology in this institution at the time of his death.

## MINOR INTELLIGENCE.

CHOLERA is decreasing in Europe.

SAINT PETERSBURG has a medical school for women.

ANDERSON, Indiana, will have a Catholic hospital to cost $15,000.

DOCTOR KLEBS, of Klebs-Loeffler bacillus fame, is visiting in the United States.

THE Indiana Medical College at Indianapolis was destroyed by fire on the 3d instant.

THE Northern Ohio District Medical Society will meet at Fremont, Ohio, on December 6.

THE library of the University of Pennsylvania is to have a bust of the late Doctor Leidy.

FORTY students are enrolled at the Johns Hopkins Medical School, ten of whom are women.

THE second biennial Medical Congress, of Mexico, was held at San Luis Potosi on November 5.

DENVER has 100,000 inhabitants. Their ailments are ministered to by about four hundred physicians.

DURING 1893 there were forty-three million gallons of beer consumed for medicinal purposes in Iowa.

THE next meeting of the Mississippi Valley Medical Society will take place in Detroit in September, 1895.

LONDON has sixty ambulance stations. These respond to calls from six thousand accident cases annually.

THE Metropolitan Post-Graduate School is the name of a homeopathic institution recently opened in New York city.

BACTERIA have been doing the wells of Buffalo, and the board of health has decreed that nearly four hundred of these germ pits be filled in consequence.

**Doctor J. W. Davis**, a West Virginia physician, was recently shot for declining to attend his murderer's family.

**The** Union Protestant Infirmary, of Baltimore, received a bequest of $3000 from the late Charles J. Baker, of that city.

**Doctor Malcom McColl**, of Detroit, was united in marriage to Miss Jennie Graham, of the same city, on the 8th instant.

**Doctor Henry P. Bowditch**, of Boston, has been appointed by the mayor to a trusteeship of the Boston Public Library.

**Doctor J. M. Ratliff**, of Cincinnati, Ohio, has been appointed Superintendent of the Dayton Asylum for the Insane.

**The** bacillus of tetanus is the most virulent of all known bacilli. This information is announced by a Keen observer.

**The** University of Michigan has conferred the degree of LL. D. on Doctor George M. Sternberg, Surgeon-General of the army.

**A sanitary** convention conducted under the auspices of the State Board of Health was held at Charlotte, on November 22 and 23.

**Philadelphia** is again becoming a medical centre. In the various medical schools there are now two thousand four hundred students.

**Doctor Schulte** has resigned the position of acting Health Officer of Detroit, and Doctor Webber has been appointed temporarily.

**The** late Doctor Pliny Earle, of Leicester, Massachusetts, bequeathed $6,000 to that city for the erection of a building for a public library.

**There** were one hundred and seventeen cases of small-pox, with forty-three deaths, in Milwaukee during the period from October 22 to November 15.

**Professor Ludwig Mauthner** died suddenly on October 20. He had been recently elected to the chair of ophthalmology in the University of Vienna.

**There** is a scarcity of physicians in the Chinese army. It is said that twenty ships and an army of three hundred thousand men have only two doctors.

**Doctor John M. Byron**, Director of the Bacteriological Department of the Loomis Laboratory, has contracted tuberculosis by inhaling bacilli while engaged in professional work.

**Doctor Charles E. Slocum**, of Defiance, Ohio, has donated $50,000 to the Ohio Wesleyan University, located at Delaware. The gift is for the purpose of founding a new laboratory.

**Billroth's** letters are to be published. The widow of the dead surgeon has sanctioned the project and the missives will be edited by Doctor Georg Fischer, surgeon to the Hanover City Hospital.

**The** Illinois State Board of Health has ruled that dental, pharmacy, or veterinary colleges will not be entitled to recognition for any part of a course involving the degree of Doctor of Medicine.

**Doctor Collins H. Johnston**, of Grand Rapids, has been appointed gynecologist to Butterworth Hospital and Union Benevolent Association Hospital in that city. These institutions are to be congratulated on their able acquisition.

A GERMAN Hospital is being erected at Williamsburg, New York. It will cost $250,000, and will be located on a plot of ground comprising twenty-seven lots. The corner stone was laid October 22.

THE pulsimeter is a new invention designed for physicians. It is constructed on the principle of a stop-watch and is intended to time the pulse. The number of beats per minute is indicated on a pulse dial.

THE Board of Education of Detroit have decided to establish a school for the deaf and dumb of the city. It will be instituted as an experiment for two months and continued if satisfactorily patronized.

THE vacancy in the medical department of the Michigan Mutual Life Insurance Company occasioned by the death of Doctor H. F. Lyster has been filled by the appointment of Doctor C. A. Devendorf.

THE Maryland Board of Medical Examiners convened in regular semi-annual session on October 18, 19 and 20, and admitted nine applicants to the practice of medicine and surgery in that commonwealth.

THE son of Doctor Dudley S. Reynolds, of Louisville, Kentucky, Doctor Dudley Sharpe Reynolds, Junior, died from the effects of the accidental discharge of a pistol, on October 22, at Collinsville, Illinois

APPLICANTS for positions on the rapid-transit street cars of Saint Louis are required to submit to an examination of their eyes by a competent ophthalmologist, employed at the expense of the street railway companies.

DOCTOR KATHERINE BERRY RICHARDSON is professor of Visceral and Histological Anatomy in the College of Physicians and Surgeons of Kansas City. She will probably impart instruction in the abdominal section.

BOSTON barrels its scraps and clutter—not for future use, but as a sanitary precaution. One hundred and twenty-five of these receptacles are stationed at convenient points about the city and all refuse is consigned thereto.

TROLIOSIS is the latest electro-medical term. It designates an affection occasioned by contact of a trolly car with a human body. As the unfortunate victims seldom recover a more appropriate name would seem to be trol-ah!

DOCTOR L. A. PIERCE, of Bucyrus, Ohio, was recently accused by a woman patient of unprofessional conduct. The case received a hearing by the grand jury and no cause for indictment being manifest the doctor was discharged.

BEWARE of the bicycle. A hobbledehoy over at Jeffersonville, Indiana, has yielded the sight of both eyes to the antics of his wheel. He was inflating the pneumatic tire and the tube exploded. This was a header with a vengeance.

HARVARD COLLEGE has appointed Doctor George W. Fitz custodian of the general health of her two thousand students. The doctor is not required to prescribe, his position being akin to that of health commissioner whose duty involves the summoning of a competent physician to treat each case.

ICELAND is developing leprosy to a greater degree than has been supposed. A physician delegated by the Danish government to make a tour of inspection through southern Iceland found fifty-three lepers, and an effort will be made to prevent the further spread of the disease by building a hospital in that section

THE Play Ground Department of the Union for Public Good is the lengthy appellation of a society recently organized in Baltimore, the object of which is to provide playgrounds and large buildings for recreation purposes of children.

THE CZAR'S DEATH.—Now that the late ruler of all the Russians is certainly dead, there is no need of disguising the cause of death. He died from contracted kidney, a common affection in persons addicted to the good things of the table.

MINNESOTA will probably establish an institution for the care of epileptics, and another state hospital for the insane. The recommendation is made by a board of physicians appointed by the Governor to investigate the needs in that direction.

THE Clinical Research Association has been founded by a number of eminent English physicians. This body contemplates rendering accessible to general practitioners and patients all forms of bacteriological, chemical, and microscopical information.

HONG-KONG opium dealers have issued a pamphlet in which data is cited to show that persons addicted to eating or smoking this drug were practically exempt from the ravages of the recent epidemic of plague, only a few exceptional cases being recorded.

THE statue to Claude Bernard was unvailed on October 28. Medical, military, and political personages were present at the ceremony. The statue represents the experimenter in the erect posture, with lancet in hand, and inoculating the biological frog with curare.

CONSULTATION offices for rent on the hourly tenure plan are a Chicago innovation. Physicians having offices in the resident districts occasionally desire to meet a patient down town, and the Reliance building affords an opportunity for this convenience.

VILLEMIN, the discoverer of the infectiousness of tuberculosis, was recently memorialized by the unvailing of a monument erected at Bruyère-en-Vosges. Doctor Viger, the Minister of Agriculture, delivered the oration on behalf of the Government to a distinguished assembly.

THE University of Pennsylvania has received a gift of $100,000 from Mr. and Mrs. Houston. The money will be expended in erecting a students' hall, and in recognition of this handsome donation the trustees will name the edifice after Howard Houston, son of the givers, who died while a student in the University.

DRUNKENNESS has been increasing to an alarming degree in Saint Petersburg, and the authorities have decided to adopt stringent measures to suppress it. Any person found intoxicated in the street is imprisoned for a period ranging from one to three days, and if the individual who dispensed the bewildering drink can be apprehended he is fined from five to twenty-five rubles.

INVESTIGATORS who have been recently dabbling in the bacteriology of baked bread succeeded in cultivating thirteen different species of microbes from a portion taken from the centre of freshly baked loaves. Even the staff of life is writhing under the brunt of the clan bacilli! We have been kneading this information to supply the missing link in the biblical story which fails to recount the modus operandi involved in the bout between Cain and Abel.

Doctor Cyrus Edson, Commissioner of the New York Board of Health, recommends the registration of persons afflicted with tuberculosis. While many are in unison with the doctor on this point, yet a goodly number of the older members of the profession seem inclined to regard the inovation with distrust.

Health Officers in Trouble.—A petition for the removal of the health officer of Brooklyn has been circulated. Impeachment proceedings have been begun in the common council against the health commissioner of Milwaukee. In Detroit the health commissioner has been deposed for alleged incompetence. The way of the health officer is hard.

The Toledo Microscopical Society convened in monthly session on October 11. Papers on subjects relating to microscopy were read and discussed, mounted specimens were exhibited, and a conversazione followed. The officials for the ensuing year are: President, Doctor E. M. Goodwin; vice-president, Doctor John North; secretary, Doctor W. H. Snyder.

The Massachusetts General Hospital will have its dimensions increased by a steam laundry to cost $10,000. The building will include a sterilizing department where clothes may be put through the purification process under steam pressure, the microbe being induced to vacate by a liberal application of soft soap engendered from the kitchen grease of the hospital.

At the recent annual meeting of the Wayne County Medical Society the following officers were elected for the ensuing year: President, Doctor E. B. Smith; vice-president, Doctor Samuel Bell; secretary, Doctor W. R. Henderson; treasurer, Doctor C. Henri Leonard; Board of Directors, Doctors W. J. Brand, George Dakin, R. R. Lansing, L. E. Maire, Kenneth Gunsolus.

The investigations of the Lexow Committee in New York City have revealed the appalling information that two hundred professional abortionists ply their vocation in that metropolis. The villains have been protected by the police, who, in turn, extorted enormous sums for their guardianship, one criminal paying "hush money" to the amount of $2,825 on the installment plan within a period of six weeks.

The Church Sanitary Association is the name of a society which has been recently founded in England. Its magna charta declares that personal cleanliness and the observance of hygienic laws are Christian duties, and clergy and laity of the established church are enrolled as advocates of these vital principles. Propaganda will be organized by the establishment of lecture courses and the circulation of public health tracts. The work of reform will embrace the correction of unsanitary designing in church architecture.

The fiftieth anniversary of the discovery of anesthesia by Doctor Horace Wells, is to be celebrated. The Connecticut Dental Association has charge of the affair, and has enlisted the coöperation of the only living descendent of the discoverer, Mr. Charles J. Wells, of Hartford. It is proposed to erect a bronze tablet on the site where a half century since stood the office of this great benefactor to medical science. The celebration will be held in Philadelphia, on Tuesday, December 11, 1894. A banquet will occur in the evening.

**The** New York Pharmaceutical Club has one hundred and sixty-five members. It was incorporated last August, and membership is limited to pharmaceutical men in good standing. On November 21 the club gave its first dinner, fifty members partaking thereof. In the festivities of the occasion a unique departure was inaugurated by abolishing the practice of reading papers and delivering post-prandial speeches.

**The** Chicago Gynecological Society held its sixteenth annual meeting on October 19. The annual address was delivered by the retiring president, Doctor Fernand Henrotin, a bountiful repast was indulged in, and the following were elected officers for the ensuing year: President, Doctor Franklin H. Martin; vice-presidents, Doctors A. J. Foster and J. C. Hoag; secretary, Doctor H. P. Newman, editor, Doctor T. J. Watkins.

**Doctor Virginius A. Turpin** recently died at his residence in New York City, aged seventy-five years. The doctor spent the greater portion of his life in Chicago where his reputation was excellent and his practice extensive. During the cholera epidemic of 1866 he was placed in charge of the cholera hospitals at Saint Louis. He was considered a high authority on this disease. About two years since he became a resident of Gotham.

**The** Sanitary Committee of the Philadelphia Board of Health have declared in favor of a biological laboratory and the necessary equipment for investigating contagious diseases, facilitating diagnosis, examining water supplies and food-supplies, with the hope of obtaining knowledge indicative of appropriate remedial measures. The board will petition the city council for $15,000 to be expended in organizing a division of bacteriology and disinfection.

**Doctorein** has been suggested as an appropriate and convenient title for the woman physician. It may not meet with the approval of the feminine portion of the profession, but it is unquestionably preferable to "doctoress," "woman doctor," or "female practitioner," and certainly the objection cannot be advanced that the title is devoid of force, since nomenclature has consigned it to the puissant category embracing amylin, ethylin, margarin, et cetera.

**The** South Carolina State Medical Examining Board held its second meeting at Columbia, on October 9 and 10. Fourteen candidates applied for permission to practice medicine in that commonwealth, four of whom were rejected. The next meeting will convene on the fourth Tuesday in April, 1895. Anyone wishing to practice in the meantime must submit to a general quiz before the chairman and secretary of the Board, and if these officials are satisfied as to the qualifications of the applicant a temporary permit will be issued, the validity of which will obtain until the date of regular examination.

**The** Woman's Christian Temperance Union, of Kentucky, recently adopted a set of resolutions imploring the "Kentucky State Medical Association, as well as every local medical association within the state, to sound a high key-note on this question of paramount importance," intemperance. One of the resolves relates "That because of the deserved and almost universal confidence reposed in the physician, and the consequent rare degree of responsibility attached to his own influence upon society, we most respectfully urge that you will in the future banish all fermented and distilled liquors from your association banquets."

THE Health Officer of Cleveland has inaugurated a crusade against the smoke nuisance in that city. It might be advisable for this functionary to proceed cautiously else his commission may go up in smoke. We would admonish him to beware of the fate of his colaborers in Milwaukee, Detroit, Buffalo and Brooklyn. The laity are not prone to view sanitary measures from the stand-point of propriety, especially when their vision is dimmed by the carbon cloud.

DOCTOR A. CONAN DOYLE, of London, who has been sojourning in this country for several weeks, recently visited the cemetery in which repose the remains of Doctor Oliver Wendell Holmes, and in the name of the London Society of Authors decorated the grave of the physician literateur. The memorial consisted of a number of palms tied with purple ribbon and ornamented with large bunches of English violets, bride roses and asparagus vines. The card attached read: "From the Society of Authors (London). A token of reverence and of love. A. Conan Doyle."

DOCTOR JOHN BUELL WHITE, of Saginaw, died of blood poisoning on the 21st instant. Deceased was born in Onondaga county, New York, in 1826, and graduated from the Philadelphia College of Medicine in 1852. He assisted in founding the Michigan State Medical Society, and some years ago served this body in the capacity of vice-president. He was a pioneer in the Saginaw Valley, having settled there in 1854. Many positions of civic trust were conferred upon him by an appreciative public, among them being sanitarian, alderman, supervisor, coroner, et cetera.

FUNDS are being collected to erect a bronze statue to Charcot. The movement, which was inaugurated by his pupils and former associates, has already received substantial support in Germany, England, and Italy, and it is to be hoped that America will manifest its liberality by contributing handsomely to this deserved testimonial. The New York Neurological Society has appointed a committee to receive donations and forward them to the central committee in Paris. Remittances addressed to Doctor Edward D. Fisher, in care of the above organization, will be duly acknowledged.

DOCTOR ARPAD G. GERSTER, a New York surgeon, has had the Knight's Cross of the Order of Francis Joseph conferred on him by the Emperor of Austria and King of Hungary. The doctor was instrumental in founding the Hungarian Emigrant Aid Association in New York City, and it is in recognition of this valuable philanthropic service that the high distinction was bestowed. This honor has never been accorded an American citizen who has not previously occupied an official position under the Austrian government, and Doctor Gerster is to be congratulated on being the exception to the rule.

THE reconstruction of the ancient water conduits of Jerusalem, which date from the age of King Solomon, has been determined upon by the Turkish Minister of Public Works. The new conduits will be connected with the ancient aqueducts of Arob and carried through a tunnel 3,570 meters in length. The Holy City will have a water supply of twenty-five hundred cubic meters daily, and intends giving one thousand meters to the poor, distribution to take place at the Mosque of Omar, the Holy Sepulchre, and other places frequented by pilgrims. The estimated cost of this improvement is 2,000,000 francs.

The Loria Bureau of Autopsy is an institution which was founded at Milan some years ago, and which has established a business sufficient to perpetuate its existence. It has for its purpose the performance of autopsies on persons whose death has occurred under suspicious or strange circumstances. The family of the deceased, or the court of law desiring to investigate the case, can order the director, Professor A. Vegra, to make an examination and report, and it will be speedily executed in accordance with the expert method. All autopsies are recorded and are accessible for reference and study.

The Vermont State Medical Society held its annual meeting in Montpelier, October 11 and 12. The attendance was the largest in the history of the organization, the literary features involved momentous papers and vigorous discussion, and the banquet occasioned a "feast of reason and a flow of soul." Distinguished laymen present were the Governor, Speaker of the House, and other officers of the legislature. The next meeting will convene in Burlington, and the following officers will manage the affairs of the society for the ensuing year: President, Doctor J. H. Linsley, of Burlington; vice-president, Doctor F. F. Chaffee, of Stratford; secretary, Doctor D. C. Hawley, of Burlington.

The Tri-State Medical Society of Illinois, Iowa and Missouri, met in Jacksonville, Illinois, on October 2 and 3. It is reported that the meeting was a pronounced success. Prominent members of the profession from Chicago, Saint Louis, and Kansas City were present and participated in the deliberations. The following officers were elected for the ensuing term: President, Doctor James Moores Ball, of Saint Louis; senior vice-president, Doctor Bayard Holmes, of Chicago; junior vice-president, Doctor L. A. Malone, of Jacksonville, Illinois; secretary, Doctor Frank P. Norbury, of Jacksonville, Illinois; treasurer, Doctor E. S. Chase, of Waterloo, Iowa. The next meeting will be held in Saint Louis, next April.

The Board of Regents of the University of Michigan having removed the barrier of sex to the occupancy of the various chairs, a movement has been inaugurated in Detroit to endow a woman professorship. It is estimated that the income from $30,000 will sustain the chair, and Mrs. T. W. Palmer has subscribed $10,000 of the amount, contingent upon the whole sum being raised. Mrs. C. A. Kellogg has also subscribed $3,000, and Mrs. H. H. H. Crapo Smith, Mrs. H. P. Jenkins and Mrs. S. L. Smith, an additional $1,000. Undoubtedly the deans of the several faculties will vie with each other for the capture of this attractive feature. In the event of this proceeding there is a possibility that the medical department will emerge the victor.

Alabama recently granted a charter to another medical college. The spirit of rivalry, which invariably obtains, has prompted the Texans to establish a medical school at Fort Worth. Nashville will soon have one—founded on a basis of "personal differences," the hopes of existing faculties having been blasted to obtain this footing. Over fifty medical colleges have been chartered in the United States during the past fourteen years, but several of these have long since suspended operations. The medical faculties of this country comprise over 3,000 physicians. We have one medical school for every 430,000 of population, or one for every 730 physicians. Ohio and Missouri lead with sixteen schools each, while New York is content with an even dozen.

Oysters are now accused of disseminating the typhoid bacillus. There is an outbreak of typhoid fever at the Wesleyan University in Middleton, Connecticut, about thirty cases having been reported to date. The source of the disease has been traced to oysters taken from the Quinepiack river in the vicinity of New Haven. After procuring oysters from the deep waters of the sound it has been the custom of growers to deposit them in the shallow river for twenty-four hours before opening. This procedure causes them to swell and whiten. While sojourning in this stream the oysters absorb the fresher water and thereby become infested with bacilli from the many sewers that are continually emptying their contents into the shallow pool.

The Medical Society of Virginia convened in twenty-fifth annual session on October 23, in the city of Winchester. Nearly three hundred members were in attendance. The deficiency in the number of papers presented was amply compensated for by the excellent discussions. The next meeting will be held at Wytheville during the fall of 1895, the date to be fixed by the executive committee, and the affairs of the organization will be conducted by the following officers in the meantime: President, Doctor Robert J. Preston, of Marion; vice-presidents, Doctors Hugh T. Nelson, of Charlottesville, C. M. Stiggleman, of Floyd Court House, and John Grammar, of Houston; recording secretary, Doctor Landon B. Edwards, of Richmond; corresponding secretary, Doctor John F. Winn, of Richmond; treasurer, Doctor Richard T. Styll, of Hollins.

Longevity and Drink—The British Medical Association has been investigating the question of longevity in connection with the use of alcoholic beverages. Deaths to the number of four thousand two hundred and thirty-four, taken at random, show the average age of temperate drinkers to be sixty-three years; careless drinkers, fifty-nine years; free drinkers, fifty-seven years; intemperate drinkers, fifty-three years; total abstainers, fifty-one years. The analysis in the case of those who reached the age of over eighty shows that fifteen per cent. were total abstainers, ten per cent. heavy drinkers, and seventy-four per cent. moderate drinkers. Of those who lived more than ninety years, fifteen per cent. were total abstainers, nine per cent. were hard, and seventy-five per cent. moderate, drinkers. These figures must be applied with some caution. A certain large proportion of total abstainers are so because of some form of ill-health or natural weakness.

The Detroit Board of Health has instituted a commendable sanitary measure by creating an information bureau for the convenience of persons seeking houses to rent. This innovation contemplates furnishing specific information regarding the sanitary condition of every house in the city. Three large maps will show the location and surroundings of each habitation, and when the inspection corps makes its annual examinations of premises the returns will be tabulated and placed at the disposal of house hunters. Details will be narrated with referenc to material employed in constructing the house—whether stone, brick, or woo height in stories, number of rooms, size of surrounding yard—if any, ventilatio condition of closets, plumbing, et cetera. The expense of this procedure will b about $200, the maps costing $180 of this amount. The landlord will hence forth be compelled to keep his tenements in first-class condition or suffer th brand of unhygienic to be placed thereon.

A DECISION adversely to the "Keeley Cure" has been rendered in Massachusetts. In 1893 Doctor B. D. Evans, who, by the way, is medical director of the New Jersey State Hospital for the Insane, gathered statistics from the asylums for the insane throughout the United States, and compiled and published a paper embracing the number of cases of relapse, suicide, mania, and dementia following the Keeley treatment. The article was reproduced in a Boston newspaper, and coming to the notice of the Keeley people they applied to the Temperance Reform League of the Bay state for an examination into the matter to the end that their "cure" might be vindicated. By virtue of its charter from the state the League is a quasi-court with functions equivalent to those of a judge who examines conflicting medical evidence in a suit for malpractice and announces the result. The outcome of the deliberations is an endorsement of Doctor Evans by election to membership in the League, and an abandonment of the Keeley offices in Boston.

# RECENT PUBLICATIONS.

## REVIEWS.

### MATERIA MEDICA.*

A SECOND edition of "White's Materia Medica" indicates how favorable has been its reception by the American student. Written by an author who speaks with authority on the subject he elucidates, the American edition has been absolutely adapted to the needs of the student on this side of the Atlantic by a complete revision and renovation of the book upon the principles of our pharmacopeia. Brevity and lucidity of expression characterize the descriptive writing, and careful and scientific arrangement enable the reader to avail himself expeditiously of the resources placed at his command.

It is an extremely handy volume and will be much valued by students.

*Materia Medica, Pharmacy and Therapeutics. By W. Hale White, M. D., F. R. C. P., Physician to, and Lecturer on, Materia Medica and Therapeutics at Guy's Hospital, London. Edited by Reynold W. Wilcox, M. A., M. D., LL. D., Professor of Clinical Medicine and Therapeutics at the New York Post-Graduate School and Hospital. Second American edition. Price $3.00. P. Blakiston, Son & Company, Walnut street, Philadelphia.

### A MANUAL OF HYGIENE.*

THIS is a text-book embodying in a concise and practical form the fundamental principles of hygiene and preventive medicine. It is the outcome of the author's lectures upon the subject. The field of practical hygiene is pretty thoroughly traversed, and for the purposes of the student the work will possess merits of brevity and condensation larger works sometimes lack. The work is amply illustrated, and will be found modern and practical.

*By Mary Taylor Bissell, M. D., Professor of Hygiene in the Woman's Medical College of the New York Infirmary for Women and Children. Cloth. 338 pages. The Baker & Taylor Company, 5 and 7 East Sixteenth street, New York.

## ATTFIELD'S CHEMISTRY.*

THE fact that a fourteenth edition has been demanded is a sufficient assurance that "Attfield's Chemistry" is still a favorite with students of chemical science. That chemistry is a changing science, few sciences more so, makes requisite a rapid revision of standard works. The volume before us exhibits all the high qualities which have made this manual so familiar and popular. It is a standard work, and being probably unequalled for laboratory work, will doubtless long continue to win the suffrage of chemical students.

*Chemistry, General, Medical and Pharmaceutical; including the Chemistry of the United States Pharmacopeia. A Manual of the General Principles of the Science, and their Application to Medicine and Pharmacy. By John Attfield, M. A., Ph. D., F. I. C., F. C. S., F. R. S., et cetera, Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, et cetera. Fourteenth edition, specially revised by the author for America to accord with the new United States Pharmacopeia. Fourteenth edition. In one handsome royal 12mo volume of 794 pages and 88 illustrations. Cloth, $2 75; leather, $3.25. Philadelphia: Lea Brothers & Company, 1894.

## THE ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES.*

THE "Annual of the Medical Sciences" has come to be an essential want of progressive physicians. The bulk of medical literature is a rude and undigested mass until it has been sifted through the refining process of the encyclopedist and purged of its fatty and superfluous material. The need of having competent editors to read medical journals for one, is forcibly illustrated in the Annual, in which the references extend to two thousand one hundred and seventy-six separate publications, and to many of these, of course, many times repeated. The salient and essential parts of that which constitutes medical advance, are accurately recorded. The Annual this year fulfills all its promises. Its contributors are among the best-known names in medical science. Many articles call for special commendation. The section on General Therapeutics, by Dujardin-Beaumetz, is an example of that authority's most telling style. The illustrations are as usual excellent. The work in every way fulfills its excellent purpose, and the editor-in-chief, his collaborateurs, and the publishers are alike to be congratulated upon the character of their work.

*A yearly report of the progress of the general sanitary sciences throughout the world. Edited by Charles E. Sojous, M. D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborateurs and correspondents. The F. A. Davis Company, Publishers, Philadelphia.

# MEDICAL PROGRESS.

## THERAPEUTICS.

### SALINE INTRAVENOUS INJECTIONS.

IN severe and rapid loss of blood, presence of mind and prompt action a necessary to save life. Doctor Peter Horrocks of Guy's Hospital, London, in a article before the London Obstetrical Society relates in *The American Gynec logical and Obstetrical Journal* several cases of intravenous injection of sali solution in cases of severe hemorrhage. Transfusion of blood was the natural remedy, but Doctor Woolbridge believed it was not only useless but injurious. His theories were that:

(1) When a person is dead from rapid hemorrhage there is still in the body sufficient blood to carry on life, if it can be circulated.

(2) Theoretically half the volume of blood could do the same work if it were given double the velocity.

(3) Death from hemorrhage is due to failure of the heart, and this is due to want of extension owing to the fall in the blood-pressure.

(4) This blood-pressure can be raised if as much fluid be transfused as there has been blood lost.

Following out this line of thought Doctor Horrocks performed some experiments on dogs and after treating seven cases he gives his opinion in the following summary:

(1) Transfusion of blood is useless and probably injurious.

(2) Water with or without salt should always be used.

(3) The amount injected should equal, as far as possible, the amount of blood lost.

(4) Enough fluid should be injected to cause the pulse to be perceptible at the wrist.

(5) The worst cases require about six pints.

(6) No patient should be allowed to die from severe hemorrhage without an attempt being made to save by injection of a copious quantity of fluid.

(7) In less severe forms of hemorrhage where the patient is in a low condition, though not pulseless, intravenous injection of several pints (two to five) of saline fluid should be given, to avoid secondary syncope.

(8) In the more moderate cases each one must be judged on its merits, but when in doubt it is better to inject; many of these, however, will rally by copious watery injections into the rectum, or by subcutaneous injections into the cellular tissue between the shoulders and other parts.

# MEDICINE.

## DIDACTIC AND CLINICAL TEACHING.

The study of medicine as followed in the best medical schools is spread over a number of years, beginning with the foundation branches and ending in the last two years with the practical parts. While lectures of a didactic character may be necessary in part in the first and perhaps second years of the course, the laboratory work should form a large part of this half. After this, the didactic lecture should be put aside and cases should be intelligently and systematically followed in the wards and dispensary.

The schools that insist on the didactic lectures to the end and have but one or two clinical lectures a day will hardly turn out the right kind of men. The making of good text-books and works intended to supplement the ward work can in a great measure take the place of the musty and often out-of-date didactic lecture which is given in a perfunctory manner. Medicine alone needs object teaching more than any other of the professions.

The proper study of mankind being man, it should be the duty of the medical school so to frame the course that the student, after he has mastered the rudiments, may study disease at the bedside and after following out each symptom and sign, then to refer to, not read through, his books. In this manner of study the treatment may be left to the last, but it should not be entirely neglected for the diagnosis. Americans living in Germany often have a German physician to make the diagnosis and then call in a practical American or Englishman to prescribe.

The student needs diagnosis and then, as he proceeds, efforts as to forecasting the probable outcome of the disease should be made, for in private practice it will be found out what value people put on the right prognosis. The general class of drugs to be used will be known by their physiological action and the doses are gradually acquired by constant prescription writing. It should never be forgotten that all books describe disease as it occurs on the average, and because a patient is ill he need not necessarily have one of the diseases as laid down in the books. There are atypical cases, and these as well as the typical ones can be learned at the bedside.

Therefore, the progressive school and one that wishes to turn out men fit to practice, and not theorists, will let the dry didactic lecture give place to bedside teaching and clinical lectures, and the result will be that a student will be ready to practice when he graduates and will not have to sit in his office and wait for gray hair and venerable looks. The multiplicity of medical schools and the competition between the poorest ones do not elevate the standard of the medical profession.—*The Maryland Medical Journal.*

## GYNECOLOGY.

### PLASTIC SURGERY IN GYNECOLOGY.

The practice of surgery in all its branches requires a mechanical trend and an ability to devise means to accomplish a given end. All surgery is a species of civil engineering. It is a means of overcoming deficiencies or derelictions in the animal mechanical economy. If nature has been faulty in her distribution of the raw material, surgery comes to her assistance and adjusts the mechanical balance of affairs, as in the clubfoot, hypospadias, cleft palate, or wryneck. If there has been an accident to the economy, surgery steps in with the engineering problem to be solved, what is to be removed and what is to be repaired, or what new means is to be found to regain a lost function or repair a damaged one. Now in all this it is evident that the mechanics of the part affected must be thoroughly understood before its repair can be accomplished, or intelligently undertaken. Once understood, a function may be imitated mechanically; artificial legs can run a bicycle or a foot race, and artificial hands accomplish many of the nicest maneuvres. Without such understanding all surgery or indeed any mechanical process is merely experimental and its results but tentative. Herein lies the fault and the failure of many of the mechanical and operative devices in the so-called improved methods of operations.

It requires no surgical genius to stitch a testicle in the inguinal canal in order to cure a hernia, or to perform some similar flighty trick that is novel and idiotic. But this is not surgery. The argument may be followed out indefinitely.

To do efficient plastic work in gynecology, a careful study of the anatomy and physiology of the parts injured and to be dealt with is necessary. Just as the scientific understanding of the mechanism of normal delivery has developed the scientific obstetrical forceps under the name of "Axis Traction," with the consequent diminution of the accidents of labor hitherto observed, so the study of the function of the parts often unavoidably damaged, renders their repair a matter of exact science modified only by the skill of the operator. The mechanism of perineal resistance and fracture is not a matter of chance, and the parts to be restored to function must be replaced in as nearly their physiological condition as possible. A heaping up of tissue here or a splitting there, although simulating a relay opposing structure, does not necessarily mean strength, and it often happens that the advantage gained is apparent, not real.

Let me then insist that in order to mend a perineum intelligently, the mechanism of labor must be understood and the lines of fracture appreciated. The perineum does not break hap-hazard but always in well-defined lines, save under instrumental violence, and when tears are due to this cause they must be dealt with as lacerated wounds anywhere else. The anatomical fractures due simply to obstetric force and resistance must be mended in the lines in which they occur.

Looked at from this stand-point the multitude of operations devised for the repair of the perineum is strangely grotesque. In no other part of the body has so much been attempted with so little scientific knowledge, unless we except that fool's paradise, the abdomen. Operation after operation has been suggested, with this or that name attached to it, without a shadow of justification for existence in the scientific literature of the day. Unfortunately, however, a name often goes as great a distance in surgery as on a forged note, and the operation gains prestige not from its merit but from its introducer. It is not my intention to hold up any special operation to ridicule, but rather to insist that any operation having for its end the remedy of a mechanical deficiency, shall have for its foundation a firm scientific principle and not simply a plausible plea that it brings about a condition which *simulates* the normal. By this it should stand or fall, as it would at once disclose whether it be a really valuable procedure or merely a specious simulation. Without such criterion, it will be necessary to make a careful comparative study of the methods proposed. Meanwhile the younger operator is left floundering in the whirlpool of discussion and claims while the unfortunate patient is suffering all the inconveniences of experimental surgery. Here let it be formulated that an operation or procedure justified by scientific deduction is never reprehensible; and that the merely experimental procedure should be frowned upon, unless the condition of the patient is so bad that any operation, whatever, must improve her and be a relief.

Under the present abdominal regime of surgery, perineal and plastic work bids fair to become a lost art. The general practitioner is led to look inside the abdomen for all the evils of a woman's flesh, while, too often, it lies in injury done to the bladder or perineum or cervix during labor. Neglected cervical tears do much to render pelvic surgery necessary, while, on the other hand, indiscriminate *cervical* surgery often emphasizes previous *pelvic* disturbance and renders operative interference necessary. Hence will be seen the necessity carefully to discriminate between cases that operation will improve and cases that it will render worse.

In cases of serious pelvic invasion with accompanying lacerated cervix, it is often better, or imperative, first to do the pelvic operation and to follow this, *at another time*, with the cervical repair. I unhesitatingly condemn the plan advised by some to perform internal and external operations at one sitting. Surgery has not for its object the experimental determination of how much endurance the surgeon may possess, nor of how long the sufferer can stand anesthesia without collapse. That "enough is as good as a feast," is nowhere truer than in the surgery of gynecology. There is enough discomfort incident to the surgery of any one or two of the simpler procedures, without heaping upon this the pain and danger of an abdominal operation.

Apart from the growing discomforts of neglected perineal and cervical lacerations, it must be remembered that the existence of a damaged and defective perineal structure conduces to future difficult and sometimes dangerous labor by predisposing to failure of rotation of the head. In reference to injuries of the cervix, it is always to be remembered that serious laceration of this structure is frequently a cause of aftercoming malignant disease, of subinvolution, sterility, congestion and the like; often putting the patient in a condition of chronic invalidism from pain, menorrhagia, dysmenorrhea, displacement and mechanical derangements exhibited in relation with the bladder and rectum.

I have sufficiently dwelt upon the scientific and physiological conditions calling for attention to the surgery of these parts, and have made plain from a scientific stand-point what the requirements of plastic gynecological surgery are. My own practice in this branch of surgery has been to test, as far as possible under the lines laid down, what has seemed to be an advance in the surgery already at command. I regret to say that in many instances my only conclusion has been that I have wasted time and done something my good sense should have forbidden, but after all the good may lie in this—that my own experience may be of use, as here, in suggesting what ought not to be done, teaching negatively by contrasting forbidden methods with others that have been uniformly successful and beneficial to the patients.

I have reminded you that perineal tears always occur at certain parts of the perineal structure. Without going into the anatomy of the parts or into a discussion of the reason for this fact, it is sufficient to remember, as each one of us with a practical experience must, that these tears are either lateral under the ramus of the pubes, or central extending from vagina toward the rectum. The tears toward the rectum tend to run around it rather than through it owing to the differentiation of structure in these two tubes. Now, it is to be remembered that the tears of the vagina are always from within outward, from above downward, and that therefore the external or skin operations for perineal lacerations, are essentially non-scientific procedures. All operations for the restoring of the integrity of those parts should be done in the lines of their destruction and, *therefore, from within outward and from above downward.* When the skin of the perineum is involved, mending of this is merely a cosmetic procedure. The cosmetic element too often predominates in many of the so-called perineal devices.

In examining a perineum to determine whether it has been ruptured or not, a mere ocular inspection will not answer. A central tear is almost always visible.

Not so a lateral subramic laceration. To detect this the finger should be introduced into the vagina, when the laceration will be determined by the fissure caused by the separation of tissue on one or both sides. The early, prompt, and, if possible, the immediate repair of these tears is to be advised under surgical rules applicable elsewhere in the body. If the patient happens to be too ill or too weak to endure surgical interference, operation is not to be insisted upon. Discretion is to be used here as elsewhere in deciding cases.

The silkworm-gut with shot is by far the most preferable material to be used for sutures. As little tissue as possible is to be included within the ligature, and strangulation is to be avoided. Early operation precludes the necessity for clipping away even the minutest bit of tissue, and the parts are usually very prompt to heal. When the sphincter ani has been involved, care must be taken to bring the ends of the muscle into apposition. To accomplish this a special stitch is necessary which I shall demonstrate in the discussion. So far as the method is concerned, it is evident to you all that the one suggested is that of Emmet. His procedure stands preëminent among the scientific suggestions and methods of modern gynecology. Its logic is unassailable, and its results cannot be fairly challenged. His work is as delicately true and accurate as an Italian mosaic, while his technique is so simple that to follow it needs only commonplace attention. His demonstration of the scientific value of his method is as accurate as that of any mathematical proposition, and criticism of the ends obtained, or of the method pursued, arises either from ignorance or misunderstanding.

In old tears the method and lines of denudation as indicated in Emmet's own book, are unfortunately obscure. This fact I believe in a measure explains the reason of the operation having so long been questioned, criticised and misunderstood.—Joseph Price, A. M., M. D., in *The Medical and Surgical Reporter.*

## SURGERY.

### APPENDICITIS AS A COMPLICATION OF DISEASE OF THE ADNEXA.

While considerable has been written with regard to the differential diagnosis of appendicitis in the female, it is only from the rather vague assertions of celiotomists that the general profession have learned how frequently it is encouraged in abdominal sections, undertaken for the removal of diseased tubes and ovaries, and how often the symptoms are entirely masked by those of the pelvic trouble. Doubtless the experience of other gynecologists in these cases is similar to that of the writer, that the diseased appendix is removed and nothing more is thought about it, since the patient's convalescence is apparently in no way affected by the extirpation of the appendix in addition to that of the adnexa. As a matter of fact, however, the frequency with which one finds the enlarged, thickened appendix firmly adherent to the uterus, left tube or ovary, or even at the bottom of Douglas's pouch, gives rise to a number of interesting pathological and clinical questions which have received comparatively little attention from either pure pathologists or practical surgeons.

Among these the first which naturally suggests itself is this: Was the diseased condition of the appendix independent of that found in the pelvis, and if not, which originated first? It is not always easy to answer this, even after a careful examination of the specimens, especially when a collection of pus exists at the point of adhesion between a diseased tube and appendix, both of which have suppurated. In most of the writer's cases the history, as well as the relative anatomical conditions of the two (the appendix being merely thickened and covered with pseudo-membrane, while the tube was thoroughly disorganized), it seemed fair to infer that the appendicitis was secondary to disease of the left adnexa, to which the tip of the appendix had originally become adherent in the same manner as a loop of small intestine. On the other hand, he has removed ovarian abscesses, adherent to the appendix, the acute symptoms (in the absence of gonorrheal and *external septic* infection) of which were indicative of septic infection transmitted from the intestine; this was further borne out by the virulent nature, as well as the bacteriological peculiarities, of the contained pus as compared with that in an ordinary pyosalpinx. Robb has called attention to the presence of the *bacterium coli commune* in this connection. It is likewise a well known fact that infection may be communicated to the contents of an ovarian cyst through the medium of an adherent appendix, thus transforming the fluid from an innocuous into one exceedingly dangerous to the peritoneum with which it may come in contact during operation. These facts, sufficiently familiar to gynecologists, should be thoroughly recognized by the general practitioner, in order that he may understand not only that appendicitis is relatively frequent in the female, but that it may give rise to results quite as serious as in the male, aside from the danger of perforation. Doubtless there are evident reasons why primary appendicitis should be more common in males, arising from the greater liability of the latter to traumatism, as well as to errors of diet, exposure, et cetera, but that non-suppurative disease of the appendix is quite as frequent in females is known to all abdominal surgeons. One reason why the contrary opinion has been held is that the clinical symptoms of appendicitis (especially when it exists as a complication) are apt to be masked by those of the accompanying pelvic trouble. Errors in diagnosis are quite common and are often entirely excusable. We are just beginning to learn that not a few cases of supposed pelvic abscess developing during the puerperium are really of appendiceal origin, being doubtless due to the lighting up of an old inflammatory focus in consequence of the traumatism resulting from labor. Every obstetrician must have had cases of unexplained sepis, which he explained as due to "auto-inoculation," but which were really cases of appendicitis. Nor are they confined to the puerperium. The writer has stumbled upon appendiceal abscesses, which he did not suspect until a thorough examination was made under ether, and has incised more than one supposed pelvic abscess which was shown at the time of operation to have no connection whatever with the pelvis. Allusion has already been made to the frequency with which enlarged and adherent appendices are found during celiotomies for the removal of diseased adnexa. The writer knows no positive sign or symptom presented by a diseased appendix, when it exists as a complication of pelvic disease. It may be suspected from the presence of severe colicky pains in the right iliac region, or on finding an induration which may be traced upward to the *caput coli*, but the same pains may be due to ordinary intestinal adhesions, and the same extra-pelvic induration may represent a displaced tube or ovary surrounded by exudate; recurrent attacks of localized peritonitis are just as likely to be of tubal origin. To palpate the diseased appendix by external manipulation under these circumstances has always seemed to him to be a procedure requiring the exercise in a high degree of the "scientific imagination."

As regards the surgical treatment of appendicitis as a complication of disease of the adnexa, the operator's duty seems to be quite plain. Unless he was quite sure that he had to do with a primary appendicitis he would certainly not be so foolish as to make a direct lateral incision, especially if he had satisfied himself that there was bilateral disease of the adnexa. The writer has seen an ovarian abscess removed through an opening in the groin by an eminent general surgeon, but the operation was blind and difficult and the ultimate result was far from being satisfactory. Having opened the abdomen and found the appendix adherent to the pelvic organs, it is the writer's opinion that the operator should remove it after extirpating the adnexa (and the uterus also if such a procedure is indicated). The additional operation takes but a few minutes, and does not add to the risk, provided that the precaution is adopted of covering the stump with peritoneum, as recommended by Morris. On the other hand a diseased part is removed, thus effectually preventing future trouble. Even if the appendix seems to be quite normal, except at the point where it was adherent, the latter is bound to be a source of danger, not only because a fresh adhesion may occur, but by reason of the weakening of the wall of an exceedingly treacherous little cul-de-sac, which appears to be unusually sensitive to irritation both of its mucous and serous coats. Indeed, though conservative with regard to all useless mutilations in either sex, the writer can not avoid the inference that it is safer for the genecologist to remove a normal appendix when he holds it in his fingers during a celiotomy, than for the general surgeon to open the peritoneal cavity by a small lateral incision for the especial purpose of groping for and removing the supposed offending organ.—Henry C. Coe, M. D., in *The New York Polyclinic.*

## THE DANGERS OF THE LONG RECTAL TUBE.

**The** use of the long rectal tube in cases of obstruction, or supposed obstruction of the bowel, has never been looked upon with favor by good anatomists. The finding of the traditional needle in the hay-stack is but little more difficult than the successful maneuvering of the rectal tube through the twists and turns of the sigmoid flexure. The question of the value and safety of this tube having been asked of the *British Medical Journal*, the matter was referred to Mr. Harrison Cripps who replied as follows to that journal:

Traditions die hard, and notwithstanding the condemnation of the long rectal tube by Brodie, Treves, and many other eminent authorities, I still find that in most cases of obstruction or supposed obstruction the tube has been introduced. Fortunately, these tubes are fairly soft, so that in a capacious rectum, when they impinge and are arrested about opposite the promontory of the sacrum, they simply coil up and do no harm. If stiffer ones are used, the patient's life is placed in imminent risk. A patient at Saint Bartholomew's Hospital was to be operated on for ruptured perineum. In order to increase the supposed efficacy of the injection, a quart of soap and water, with some ounces of oil, were injected by means of a long tube. The injection never returned. A few hours afterwards, owing to the acute symptoms of the patient, I assisted one of my colleagues in opening the abdomen. The soap and water and oil we found in the abdominal cavity, and a hole below a reduplicated fold in the upper part of the rectum. The patient died. The idea that these tubes can be generally passed into and beyond the sigmoid flexure is a pure delusion, save in the rarest circumstances. As a means of diagnosis, or of treating stricture beyond the reach of the finger, tubes of any kind are absolutely useless. If a stricture is actually present, it would be 100 to 1 against the long tube or bougie entering it, for it would almost certainly catch in the cul-de-sac, generally caused by the invagination of the stricture. If a stricture be not present, the arrest of the bougie by the sacral promontory leads to delusive diagnosis. Brodie, in his lectures, alludes to a case in which a worthy practitioner had spent 150 hours in dilating a supposed stricture situated high up. The treatment had extended over a period of a year.

## MEDICAL MELANGE.

### THE LESSON OF "TRILBY."

"A spirit pure as her's;
"Is always pure, even when it errs."

SHE was a professional model, and sat for the head and hands to many people, and for the figure, to a few. In this character of a girl who "possesses all the virtues—but one," Du Maurier has presented a truth to which mercy is blind, and men are apt to be indifferent. It is that a chased spirit may often dwell in a body which ignorance of the value of social laws, or even innocence, has left the unprotected booty of the spoiler. That a woman could err, innocently, is an incomprehensible assertion to an impure mind; and yet, how often her sin is due, not to depravity, but to an unawakened conscience, or an uninstructed youth. Probably no one is born with an inherent sense of the social proprieties—some are never taught them. Trilby, in her method of bread-earning, was as unabashed and shameless as a young fawn, and held all of her beautiful self as equally entitled to be admired and enjoyed. But such "wild bliss of nature needs alloy," and it usually comes in the shape of outraged proprieties and decorum, or a knowledge, gained too late to save, of degradation and shame. Poor Trilby, in her primal ignorance, learned it all through one glance at the face of the man who loved her; honestly, as she posed "for the altogether" to a class of art students. She, like the other Eve, found herself naked, and for the first time, ashamed. That the world offers no hope to the unfortunates of which Trilby is the type, is powerfully shown by the author. Sinners through ignorance of better things, they are thrust down and denied salvation, by an ignorance as dense as their own. There are needed apostles to teach the wide gospel of mercy based upon the science of physical, as well as moral laws. Does the family physician, among his pressing and multifarious duties, often pause to realize the entire significance of his office and its highest possibilities? His profession is exalted far above those of ordinary worldly importance, and brings with it almost a sacred trust and a divine power for doing good. Truly no priest in the confessional can come as near the human heart as the doctor, who finds, at his approach, all barriers down, and the very soul of the sufferer laid bare. What moral leprosies and hideous deformities of character he must behold sometimes; and who from deep knowledge of human nature, could know so well the healing to apply! Truly, the physician has fulfilled but half the possibilities of his ministerings if he heal the body and leave the heart unsound. The wise physician has the opportunity to overcome the prejudices and cruel vindictiveness of prudery in the feminine mind, by explaining the humane Christianity which preachers scarce dare to touch upon; that a woman may err, yet not be wholly bad, and may still be worthy of forgiveness. He, better than others, may open the narrow souls where

"Every woe a tear can claim,
"Except an erring sister's shame,"

and teach them "the glory of forgiving" and helping.—Mrs. Delia Ridgway Castner, in *Medical Mirror.*

## HYGIENIC VALUE OF PERFUMES.

**Doctor Andres**, of Philadelphia, a few years ago made the interesting discovery that the ozone in the atmosphere, the element which is the great purifier, was mainly supplied from blooming flowers—and for this reason blooming plants were healthful in dwelling houses as well as attractive. Some interesting experiments with the odors of flowers have been made in the old world, and it is found that many species of microbes are easily destroyed by various odors. The odor of cloves has been known to destroy these minute creatures in twenty-five minutes; cinnamon will kill some species in twelve minutes; thyme, in thirty-five. In forty-five minutes common wild verbena is found effective, while the odor of some geranium flowers has destroyed various forms of microbes in fifty minutes. The essence of cinnamon is said to destroy the typhoid fever microbe in twelve minutes, and is recorded as the most effective of all odors as an antiseptic. It is now believed that flowers which are found in Egyptian mummies were placed there more for their antiseptic properties than as mere ornaments or elements in sentimental work.

## CHLOROFORM IN LABOR.

**Doctor Elbridge C. Price** says: If the pains are very sharp, I generally give chloroform, but only enough to take off the sharp edge of the pain, and not for one moment to produce insensibility. I call for a tumbler that is wide at the top, or perfectly cylindrical if I can get it; if that cannot be obtained, a mug. Take a fine sponge or an old handkerchief, or a small napkin, or a piece of muslin rag, that will fill the glass nearly half full, pour about half a teaspoonful of chloroform on the cloth, and as soon as the pain comes on, hold the glass, inverted, about half an inch from the patient's nose; as soon as the pain passes off invert the tumbler on a marble-top stand or on a dinner plate, which prevents the evaporation of the chloroform but retains the vapor, so that it will smell stronger when you take it up again than when you put it down. As soon as the pain returns again, use the chloroform as before. Add more chloroform when necessary. If I wish to produce insensibility, I put an extra quantity of chloroform in the glass and let the patient inhale without interruption until unconscious. When used only during the pain the patient does not become unconscious, but can scarcely get done thanking you for the relief. I have never known the least unpleasant symptoms to occur from giving chloroform in this manner; but if profound insensibility is induced, it is very apt to arrest the pains for from half an hour to an hour.

## WHY FRUIT SKINS SHOULD NOT BE EATEN.

Fruit skins carry germs, and are no more intended for human sustenance than potato skins, melon rinds, or pea pods. This is the reason that many people think they cannot eat raw fruit. If they would in all cases discard the skin, they could derive only good from the fruit itself. Nature provides the skin for the protection of the fruit from the multitude of germs which are ever ready to attack it, as is evidenced when the skin is bruised or broken in any way—the microbes at once begin their work of decay, and the fruit is unfit for food. A daintiness as to the condition of fruit should also be cultivated, to prevent its being eaten unripe or too old, on the verge of decay.—*Health.*

## HOW TO GIVE A FOMENTATION.

Only those who have not tried the remedial effects of water, both hot and cold, doubt its efficacy in many forms of disease. It is perfectly safe to apply a fomentation in case of severe pain before a physician is summoned, and very often it relieves the sufferer before he arrives. This is the way to do it: Take half a dozen thicknesses of flannel large enough to more than cover the seat of the pain, fasten them together for convenience in handling, wring them out of very hot water (use a clothes wringer to save the hands) and apply as hot as the patient can bear it. A dry flannel may be put between the skin and the wet cloth, if preferred, and over all a large flannel should be placed to keep the heat in. When the cloth begins to feel cold, it should be wrung again. Three or four applications will generally relieve a stiff neck or an attack of rheumatism in a joint. A fomentation may be needed when there is no hot water at hand. It may be quickly prepared by wringing out the flannel compress in cold water, laying it between the folds of newspaper and putting it on a hot stove or holding it around a stove pipe until hot. The paper protects the cloth, and when steam begins to come out can be easily removed.—*Omaha Clinic.*

## DOCTORS AS COMPANIONS.

The following passage from Mr. James Payn's "Gleams of Memory," now appearing in *The Cornhill Magazine*, will be interesting to members of the medical profession: "Upon the whole, and for a 'scratch' companion, I prefer a doctor to a man of any other calling. He may not be very good as a conversationalist, but he is rarely very bad, like a cheroot. He has had a genuine experience of life, and has seen down to the depths of it; a sick man does not attempt to deceive his doctor, or put the best face on his character, as he does with a priest. Moreover, what is very unusual, your doctor knows more about you, professionally at all events, than you know about yourself. He does not tell you about it, it is true; not a word of that aneurism you carry about with you, and which will some day kill you in half a minute, but your consciousness that he may possess such knowledge makes him interesting. The best suggestions I have had made to me for plots for my novels have come to me from doctors, to whom I have also had cause to be grateful for many things."

# PRACTICE.

## THE OHIO PURE FOOD LAW AND "VIN MARIANI." COMPLETE VINDICATION OF THIS FAMOUS TONIC.

**Professor C. T. P. Fennel**, of Cincinnati, chemist for the Ohio Food and Dairy Commission, and who made the analysis of "Vin Mariani" on which Mr. John Keeshan, a well-known druggist of Cincinnati was arrested on the charge of violating the Ohio Pure Food Law in the sale of "Vin Mariani," the claim being made by Professor Fennel that said preparation was not up to the standard within the meaning of the law, has now acknowledged that he has made a mistake in establishing what the standard is, and acknowledges to the Counsel of Mariani & Company that he had not, at the time of making his analysis, examined the latest edition of the United States Dispensatory, and that "Vin Mariani" is clearly and completely up to standard as established therein. The case against Mr. Keeshan for the sale of "Vin Mariani" is thereby disposed of, and Professor Fennel has also authorized the public announcement through the press of the fact that the sale of "Vin Mariani" in the State of Ohio is perfectly lawful, and such sale cannot be interfered with under the laws. This clearly and completely vindicates the absolute purity of "Vin Mariani" and gives it this extremely rigorous additional official endorsement of its standard quality and purity, and this endorsement is only a reiteration of the uniform endorsement this world-famed tonic has received during the past thirty years at the hands of leading medical societies, academies of medicine, hospitals, clinics, professors and leading practitioners throughout this country and Europe. To fully understand the importance of the outcome of this investigation, we need only cite an extract from the Ohio Pure Food Law, to show how rigorous and exacting are the nature of its provisions, and that "Vin Mariani" fully complies with such provisions is an emphatic endorsement of its most valuable properties. The section bearing on the case is as follows:

Section 1.—That no person shall, within this state, manufacture for sale, offer for sale, or sell any drug or article of food which is adulterated, within the meaning of this act.

Section 3.—An article shall be deemed to be adulterated, within the meaning of this act: (1) If, when sold under or by a name recognized in the United States Pharmacopeia, it differs from the standard of strength, quality, or purity laid down therein; (3) If, when sold under or by a name not recognized in the United States Pharmacopeia, but which is found in some other pharmacopeia, or other standard work on materia medica, it differs materially from the standard of strength, quality, or purity laid down in such work; (3) If its strength, quality, or purity falls below the professed standard under which it is sold.

## WHERE MAY WE FIND A RELIABLE ABSORBENT?

**There** has always been more or less trouble in obtaining a good absorbent. Cotton, while cheap in price does not give satisfactory results owing to lack of strength or elasticity of fibre. Wool, while it possesses elasticity, has only medium absorbent properties and is further so irritating that few patients can be found who will tolerate its use. The following letter from Doctor E. S. Elder, Dean of the Indianapolis College, calls attention to the preparation now being introduced by the Hall Capsule Company, of Cincinnati, Ohio. With such an endorsement "Oulo-Kutun" (named from the Greek and Arabic "Wool-Cotton") should be thoroughly investigated by the profession at large.

INDIANAPOLIS, INDIANA, December 23, 1893.

THE HALL CAPSULE COMPANY, CINCINNATI, OHIO: *Gentlemen*—I have been using your preparation of absorbent cotton, "Oulo-Kutun," and take pleasure in saying that I am very much pleased with it. I have used it in my gynecological practice and find that it lacks the peculiar irritating qualities to the fullest degree. Unlike the ordinary absorbent cotton when used as a tampon, it does not absorb moisture on the surface only, thus forming an impervious mass, but continues to absorb until thoroughly saturated. Truly yours,

E. S. ELDER, M. D.

## CLINICAL NOTES.

I WILL unhesitatingly say that I consider Peacock's bromides much superior to the ordinary bromides, and the chionia I believe to be an extremely successful preparation or a very valuable therapeutic agent. I have used both with excellent success.—JOHN J. SHAW, M. D., Plymouth, Massachusetts.

I HAVE prescribed ponca compound extensively for a class of troubles where the uterus, ovaries or vagina were involved, and found it the best general alterative for such purposes that I have ever administered. For many of these troubles it seems to be a specific. In difficult menstruation it is a veritable godsend, and even in displacements it gives great assistance to nature in correcting abnormal conditions.—J. G. A. DAVIES, M. D., Canaseraga, New York.

PHYSICIANS who employ iron in their practice should be greatly interested in a new iron preparation recently introduced to the medical profession by Frederick Stearns & Company, Detroit, Michigan, called hemoferrum (blood-iron). This is a natural proteid compound aseptically prepared from fresh bullock's blood, and put up in three grain pilloids (flat pills), with a highly soluble coating. F. Stearns & Company claim their hemoferrum to be free from all the objectionable features hitherto attending the administration of iron in other forms, it being extremely soluble, pleasant to the taste, agreeable in odor, is readily and easily assimilated, and neutral in reaction. Furthermore it is non-constipating (a valuable characteristic), non-irritating and non-poisonous, even in large doses. Wherever introduced it has been warmly received by the medical profession, and has the cordial endorsement of the most prominent physicians in Detroit, in which city it has been thoroughly tested clinically. Doctor Hal C. Wyman, Professor of Surgery in the Michigan College of Medicine, states: "The pilloids of hemoferrum (Stearns') have, in my hands, proven a splendid tonic. In wards of the Detroit Emergency Hospital we have learned to depend upon them in the preparatory treatment of patients who must undergo severe surgical operations, and they have proven useful in the establishment of convalescence." Hemoferrum is especially valuable in treating cases of anemia and chlorosis where the blood is deficient in iron. Messrs. Stearns & Company will take pleasure in mailing samples of the preparation, with full descriptive literature, to all physicians who are interested, and on receipt of ten cents will forward a full-sized package containing one hundred pilloids, a quantity sufficient for a thoroughly clinical test. Write them.

# The Physician and Surgeon

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# ORIGINAL CONTRIBUTIONS.

## MEMOIRS.

### HYSTERECTOMY WITHOUT CLAMPS OR LIGATURES.[*]

By W. A. METCALF, M. D., Detroit, Michigan.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

My excuse for complying with the request to read a paper upon this subject before this society is that the general practitioner is frequently called to prescribe for symptoms which can be relieved only by hysterectomy. I wish also to call the attention of the gynecologists to this method of operation that they may aid in defining its limitations.

Before describing the operation I wish to call your attention to a few anatomical facts with which you are all more or less familiar.

(1) The arteries supplying the uterus do not enter its muscular tissue, but lie in its areolar covering, sending only capillary branches into its substance. The same arrangement obtains in the tube and ovary.

(2) The uterine body is supplied almost wholly from the hypogastric plexus of the sympathetic which produces its monthly rhythm when not pregnant. Its neck has no rhythm as its nerve supply is cerebro-spinal. At the junction of these two systems, the vicinity of the internal os, may be received the irritations originating in either system. In cases where the tubes and ovaries are diseased I have always found the mucous membrane in this locality pathological, and peritonitis is occasionally produced by simply passing a sound.

If, in amputations, ligation of a cerebro-spinal nerve causes pain, that is, disturbs the function of the cerebrum, the ligation of a sympathetic nerve may disturb its centre, the solar plexus. Irritation reaching the solar plexus means disturbed rhythm in one or every viscus; but since the terminal ganglia which control the heart are larger than those of any other organ, the effect upon them is more marked. This may explain why patients die occasionally of shock where clamps are used or where the ganglia around the uterine neck and in proximity to the tubes and ovaries are ligated.

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[*] Read before the Detroit Medical and Library Association.

I think it better not to tell the patient of the contemplated operation. Tell her you intend doing as little as will make her well. **Professor Elmer Gates** has demonstrated that unpleasant thoughts create harmful chemical products in the body, which may by detected by chemical analysis of the perspiration and urine. The thought of what the patient considers so desperate a procedure as the extirpation of the womb may produce mental emotion—a condition favoring shock. Moreover, were she never told what was done she would not be harrassed by the thought that she is unsexed. The sensual feelings produced by the pathology of the genital organs will disappear, but she will be feminine and womanly as ever.

If these observations be correct the ideal method of hysterectomy or ovarectomy is to remove the offending organ without ligating or crushing the adjacent tissue.

First, cleanse the vagina and cervical canal thoroughly, curetting the cervix if necessary, that no poisonous discharges may get into the abdominal cavity. Pack the uterine cavity thoroughly to render dissection over its surface easier. Pass a guy-rope through the cervix. Make incision around cervix down to the muscle tissue. From this point carry dissection to a point a little above the junction of the cervix with the body of the organ (the surface of the muscle being the guide); at this point the abdominal cavity is entered anteriorly. The fundus of the uterus may then be turned out through this opening and the ovaries and tubes examined. If only one be diseased it may be removed by bringing the tube down and stripping it from its attachment with the scissors. The ovary is removed separately and in the same way, by carrying incision close to its tissue. The edges of the peritoneal layers of the broad ligament may now be drawn gently together with catgut, the uterus returned to its former position, and the covering of the cervix stitched in place. If the appendages on both sides are found abnormal the uterus may be returned and the dissection continued from below, beneath the uterine and ovarian arteries to the attachment of the upper border of the broad ligament, where its covering membrane is severed. The uterus out of the way the ovaries and tubes are more easily removed. After sewing the edges of the serous membrane together which were attached to the tube, the ends of the broad ligament are approximated at the upper margin by a catgut stitch, thus forming a firm floor for the intestines. A tampon of wool covered with silk is thrust into the cavity from which the uterus is taken, to be removed when the danger of capillary hemorrhage has passed. If an artery be accidentally opened the tissue around the spurting point should be gently drawn together by a circular stitch of catgut. Tamponning the vagina with antiseptic gauze completes the operation.

I believe that **Doctor E. H. Pratt** was the first surgeon to remove a uterus without clamps or ligatures.

I have done only five hysterectomies strictly by this method. I shall not weary you with long reports, but must make them more or less complete to indicate the sphere of the operation.

*Case I.*—Mrs. B. aged twenty-seven years. She had a fall when a child. Was confined to bed several weeks at that time. Had pelvic pain ever since, Had several attacks of general peritonitis, the inflammation originating in the pelvis. In the summer of 1892 she had a cystic tumor of right ovary removed.

The other tube and ovary being imbedded in inflammatory exudate was not disturbed. Her suffering was not lessened by the operation. Pain in head and pelvis continued. Constant pain in the bladder and desire for frequent micturition made life intolerable. She was obstinately constipated. I found subinvolution, erosion of cervix uteri, and an ichorous discharge from the endometrium. I treated her locally by the orthodox method for a few weeks. She was not benefitted. She said she would rather die than suffer longer. I told her to go to the Sanitarium and I would do what I could for her. On September 6, 1893, I removed the uterus, leaving that tube and ovary, as the other operator had done. Her highest temperature was 99.4°. She was removed to her home, three miles distant at the end of the first week. Three weeks later she began to run the sewing machine. She now rides a bicycle and is well. Her constipation is cured.

*Case II.*—Mrs. L., aged twenty-six years. Had been confined to her bed for many weeks. Had not slept two hours at any one time for six weeks. Severe pain would begin in the left ovarian region, pass up to the cardiac region, when suffocation would come on and she would tear the clothing from her chest in her effort to get air. She had been subjected to trachelorrhaphy, perineorrhaphy and local treatments. I found the left ovary considerably enlarged, and on February 2, 1894, I dissected beneath the covering of the cervix and entered the peritoneal cavity anteriorly, intending to examine the ovaries and remove only what was pathological. I found a tear beginning about a quarter of an inch below the os internum and extending one inch up the body of the uterus; both ovaries were completely degenerated, although the tubes were apparently normal. I therefore removed the uterus and its appendages. She slept two hours that afternoon and nearly all that night without morphine. (She had averaged a grain and a half of morphine a day for a month previous to operation). Her lowest temperature was 97.3°; highest 99.6°. Highest pulse rate 128; lowest 72. Thirteen days after operation she was taken home in an ordinary carriage. She has been well since.

*Case III.*—Mrs. B., aged thirty-two years. A fibroid tumor of uterus, too large to be removed per vaginam. I made abdominal incision from umbilicus to pubis; freed tube and ovary to its junction with the uterus; at which point I made an incision in the side of the enlarged organ and ligated the spurting vessel. The same was done upon the opposite side. I then dissected downward beneath the lateral vessels to the cervix where the amputation was completed. Then placing the patient in the lithotomy position I removed the cervix, which was involved in the growth, without the necessity of tying a vessel; sewed up the opening in the peritoneum and packed from below. Her highest temperature was 100°, and highest pulse rate 100. This was five hours after operation. The next morning her temperature was normal and did not after that exceed 99°. She sat up on the ninth day, convalesced rapidly and is now in excellent health.

*Case IV.*—Mrs. D., aged thirty-one years. Had had constant pain in the pelvis for years. Extreme tenderness over body of uterus. Among the ordinary reflex symptoms present in pelvic disorders, that of chorea developed. Pressure upon either ovary or the passing of a sound would bring on violent choreic movements, which would sometimes continue for days. In operating

October 20, I found the ovaries degenerated, the left one gelatinous, the uterus friable and spongy. In this case also I found a tear extending up into the uterine body. Her highest temperature was 100° and highest pulse rate 106. She left the hospital thirteen days after operation. Her chorea is apparently cured and she is convalescing rapidly. The dark circles ever present around her eyes, which probably indicated that the irritation reached constantly the ophthalmic ganglia on the supraorbital, have almost wholly disappeared.

*Case V.*—Mrs. P., aged twenty-six years. She had constant pain in the left ovarian region, constipation, coated tongue, headache, backache and melancholia. She said she was married at fifteen; had five children and had had many miscarriages. She had an abortion produced which was followed by peritonitis. She had contracted gonorrhea three years ago and had been treated locally ever since with no marked benefit. I found the left ovary and tube prolapsed, enlarged and adherent. As she was still young I wished to preserve the reproductive function. After turning the uterus upside down, I removed one tube and ovary, intending to leave the other, but upon closer examination I found pus in this tube also and the ovary undergoing cystic degeneration. I returned the uterus and removed it before attempting the removal of the other tube and ovary. She took chloroform badly. I feared she would die on the table. I resuscitated her by the use of the rectal bivalve. After operation she rallied quickly and is now walking around the halls at Grace Hospital. Her highest temperature was 101° and her highest pulse rate 104.

In the majority of cases the disease of the tubes is secondary to that of the uterus. A diseased endometrium may disturb the function of other organs. If there is an hypertrophied cervix uteri there must be an atrophied cervix uteri. If reflex symptoms result from the one condition they may result from the other.

Who can say that a uterus now diseased will become normal? When its appendages are removed it loses its function and the organism is better rid of it. It should be removed, especially in those cases where the reflex symptoms predominate. Properly performed in suitable cases I think it may prove to be less dangerous than the removal of the ovaries by laparotomy. It is a difficult operation where the uterus is fixed high in inflammatory exudate. I found one case with extensive intestinal adhesions in which I made abdominal section to complete the operation.

With my present experience, I would say the indications for the operation are:

(1) Small fibroid tumors of the uterus or ovaries, except where the tumor can be removed without sacrificing the organ.

(2) Double pyosalpinx.

(3) Epithelioma of the cervix, when the periuterine tissue is not involved.

(4) Incurable endometritis, the reflex symptoms from which impair markedly the health of the patient.

The advantages of the method are:

(1) I believe the danger of shock is eliminated.

(2) The drainage is good.

(3) Hemorrhage following operation would be through the vaginal passage and therefore readily detected and more easily controlled.

(4) Where the tubes and ovaries are buried under adhesions it is easier to dig them out below than through an abdominal incision.

(5) Less liability of subsequent intestinal adhesions.

The effect of the continuous irritation of some intra-abdominal ligatures and adhesions upon glandular secretion, upon the rhythm of internal organs, upon the general circulation of the blood and therefore upon nutrition, I will leave for your investigation.

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# HYSTERECTOMY FOR CANCER.

By EUGENE BOISE, M. D., Grand Rapids, Michigan.
FELLOW OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

At the meeting of the State Medical Society held at Lansing, May, 1893, I presented a paper embodying a plea for more thorough methods in the removal of the uterus for cancer. Since that time my views have become more crystallized and confirmed, while I have in some degree modified the technique advised.

That the vaginal method of hysterectomy is the proper method in all cases where the size of the uterus does not preclude, is the accepted doctrine, and rightly so in the great majority of cases, but we must be more thorough in our methods. The problem of to-day is not how the uterus can be removed with the least immediate danger to life, but how can we best and most securely insure against recurrence of the disease. The majority of the statistics that I find place the per centage of recurrence at from sixty per cent. to seventy-five per cent. This per centage can and should be lowered.

The history of recurrence of an epithelioma of the skin is that it returns in the scar of the former operation, or its immediate neighborhood, in the vast majority of instances, and that the glands are affected late in the disease.

The history of epithelioma of the cervix uteri is not different in this respect.

In the great majority of cases (if not all) recurrence is first noticed at the scar or in the adjacent broad ligaments. When this occurs in epithelioma of the surface of the body we think the removal was not thorough, that some infected tissue was not removed. The same reasoning holds good in cancer of the uterus.

The question then naturally follows, why is the removal not thorough, and how can it be made so?

We assume, as an accepted fact, that cancer of the uterus is invariably fatal. It naturally follows that our first duty is to remove it as soon as we are convinced that we are dealing with cancer, provided we can do so with reasonable safety to life.

Our second duty is to remove it in such a manner as to preserve life and obtain the greatest possible security against recurrence.

That we may perform our duty in these respects it is necessary that we should recognize the disease at the earliest possible moment; that we should understand the history or pathology of the disease, especially as to extension, and the reasons of recurrence; and finally that we should be familiar with the technique of the methods to be adopted to accomplish thorough removal of the diseased tissues.

I say that we must recognize the disease at the earliest possible moment, because it is a self-evident fact that the earlier a cancer of the cervix or of the uterus is removed, the more thorough can the operation be made, and the greater the security attained against recurrence.

Thus it naturally follows that we should acquire a familiarity with the diagnostic symptoms and signs of the several varieties of uterine cancer in their various stages; that we should familiarize ourselves with the methods of diagnosis, and that we should be watchful and on our guard as to suspicious symptoms in women approaching the menopause.

Various classifications have been made as to the forms of cancer affecting the cervix, but probably that given by Pozzi, in his admirable work, is as distinctive as any. He gives four varieties: (1) Papillary. (2) Nodular. (3) Intra-Cervical, and (4) Vaginal.

With the papillary form we are all familiar, it being that form of fungoid growth often denominated cauliflower. I shall not attempt to give its minute anatomical characteristics, inasmuch as when well marked it can hardly be mistaken for anything else. It appears on the vaginal surface of the cervix, springing from the pavement epithelium. It is especially prone to attack the cervix at that point where the mucous membrane of the cervical canal is everted by reason of a laceration and exposed to the irritating influences of the vagina. It is slow to attack the deeper structures, but ultimately may involve the entire cervix and extend to the mucous membrane of the vagina. It bleeds easily and secretes a thin, watery, irritating fluid.

The nodular variety begins as small hard nodules in the structure of the mucous membrane. It ulcerates through to the surface and at the same time involves the submucous tissue. There are irregular slight hemorrhages, with thin, foul, sero-purulent discharge. Early in the disease it can be confounded with glandular degeneration of the cervix, but section of one of the nodules will greatly aid in making the diagnosis clear.

Then we have that variety of epithelioma that begins in the cavity of the cervix, first appearing as a disease of the cylindrical epithelium and cervical glands, and gradually destroying the mucous membrane, submucous tissue, and finally the tissue of the cervix itself. It seldom extends downward over the vaginal surface of the cervix till late in the disease, but on the contrary easily invades the endometrium and ultimately the entire uterus. The symptoms are those typical of cancer of the uterus, irregular hemorrhages, ichorous and foul discharge, and frequently severe pain.

Finally, Pozzi describes the superficial epithelioma of the vagina, invading the cervix secondarily. I shall not describe its appearance nor give its history, as when seen the suspicion of malignancy would at once be aroused.

I have given the above descriptions of the characteristics and symptoms of the various forms of cancer to which the cervix uteri is subject that it may aid, perhaps, in an *early* diagnosis of those suspicious cases which we too often see. But it is well to remember that the finger will often give you more accurate impressions than sight, though touch should always be aided and corroborated by sight. And the final decision of the microscope should be invoked in all cases where there is room for doubt.

Having made our diagnosis of carcinoma, there are two important facts to be kept in mind; first, promptness, and second, thoroughness, if we will give our patient the best possible chance against speedy recurrence of the disease.

As to the question of early removal of carcinoma of the uterus there can be but one opinion, inasmuch as surgery offers the only hope of relief.

But as to thoroughness, there seems to be a strange diversity of opinion, if we may judge by the methods employed. There are still many operators who advocate the high amputation of the cervix. There are others who have recently revived the almost forgotten method of enucleation (known now more generally as PRATT's method) whereby the uterus is scaled out from its surrounding connective tissue, leaving the uterine and ovarian vessels in the cavity of the pelvis, with almost no ligatures. The great majority rely on vaginal hysterectomy, cutting the broad ligaments close to their uterine insertion, but ligating all vessels securely, while many advocate the combination of vaginal hysterectomy with celiotomy in certain cases, notably in nulliparous vaginæ and those which have undergone atrophy after the menopause.

Carcinoma springing from the pavement epithelium of the cervix is comparatively benign, in this sense, that the lymphatic glands are not affected till late in the disease, and therefore thorough removal of all infected tissue promises well for permanent recovery.

Carcinoma originating in the cavity of the cervix is more malignant. An epithelioma tends to extend by continuity, that is, it extends from the periphery, invading the healthy tissue at its borders gradually but surely. Nor can one determine by the gross appearances the extent to which the apparently healthy tissue is invaded.

Often there are long offshoots into the surrounding tissues; so that even the mobility of the uterus and the apparent absence of thickening of the broad ligaments, are fallacious as guides.

I have said that in the ordinary forms of cancer of the cervix the lymphatic glands are slow to be affected, but the cancerous process invades the lymphatics which arise in the infected tissues and extends in their lumen far beyond the zone of otherwise healthy tissue.

MACKENRODT, of Berlin, in speaking of this subject in a recent paper, says he has examined microscopically, the tissues at the cut surfaces of cancerous uteri which had been removed by vaginal hysterectomy, and says he has found "carcinoma herde" or nests of cancer cells in the lines of section, showing conclusively that the infected tissue was not all removed. Now, in such a case, while the operation may be all that can be desired as to immediate results, recurrence at no distant day is absolutely certain.

The lymphatics that arise from the upper portion of the vagina and from the cervix of the uterus are collected into a chain of ducts which accompanies the uterine veins; while those from the middle and lower portions of the body of the uterus are collected into a chain that accompanies the round ligament to the inguinal glands; those from the upper portion of the uterus and Fallopian tubes accompanying the ovarian veins. Thus in operation for removal of cancer of the cervix uteri, the principal object, second only to immediate preservation of life, should be the removal of as much surrounding tissue as possible, and especially of the broad ligaments in which the lymphatics lie, at a point as far from the uterus as possible.

It will thus be clearly incomplete surgery to attempt to remove cancer of the cervix uteri by either high amputation or enucleation. Neither of these methods offers reasonable security to the patient and they should be condemned as unsurgical procedures, except in cases where palliation is the only end sought.

There remains, then, vaginal hysterectomy and the combined vaginal and abdominal method. While the great majority of cases can be more safely removed per vaginam, the combined method should be used in a limited number of cases, notably where the vagina is so narrow as to render the necessary manipulations extremely difficult, and in cases where there is reason to believe that the body is the seat of cancerous disease. In these cases it is desirable to ligate and cut the broad ligaments at a point as far distant from the uterus as possible, to fulfill the indication of removing all infected tissue. In such cases the anterior peritoneal surface of the broad ligaments can be dissected off and the ligaments tied and divided at a distance from the uterus sufficient to give reasonable safety against recurrence. It will often be better even in these cases to ligate the uterine arteries from the vagina.

MACKENRODT, in the paper above alluded to, says that in all cases where by reason of narrowness of the vagina, or other causes, the manipulations would be unusually difficult, the combination of abdominal sections with the vaginal method is advisable, but as a rule cancer of the uterus is to be removed by vaginal hysterectomy. He insists, however, that more of the broad ligaments shall be exsected with the uterus, and attempts to accomplish this by extending his anterior dissection, by which the bladder is separated from the uterus, laterally to a point beyond the ureters, thus dissecting the anterior peritoneal covering of the broad ligaments away, and by carrying this forward with the bladder the ureters are carried out of the way.

This manipulation, I am convinced, will be found of great benefit, and can be aided by supplementing the circular incision through the mucous membrane with lateral incisions along the bases of the broad ligaments beyond the ureters, and by blunt dissection both anteriorly and posteriorly to the uterine vessels, the ureters can be carried to a point much farther removed from the uterus than usual, and the ligatures can be placed close to them with comparatively little danger of including them.

# OUR INSANE.*

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## IS INSANITY INCREASING?

THE subject of insanity is of great interest to all of us. We know not but that our beloved ones may become afflicted, if they are not now. Leaving out the consideration of self, we owe it to the cause of humanity that those who are so unfortunate—yea, more, it is a calamity—to become so afflicted, should have the results of our best humanitarians as well as our highest skill and most intelligent care.

The army of the insane is a very large one and still increasing. Our state asylums are all full and calling for more room, and in every other state where the population is increasing, a similar condition exists, the record of 1892 indicating an average of over one hundred thousand in the United States and still increasing, and in looking up the answer to this oft repeated question, "Is insanity on the increase?" I find not a little difficulty in arriving at anything like a correct answer. The general impression is abroad that it is. In the New England States it is said to be decreasing with one possible exception, namely, Massachusetts. There are no statistics as to the number of the insane in the whole state except the general census, which is not very reliable as the census enumerator, not being a medical man, is unable to determine what constitutes insanity; and also the existing prejudice of relatives and friends, causing them in many instances to withhold their names. There are more cared for in our asylums than formerly, even in proportion to the population. The prejudice that existed in reference to institutional care of the insane is not nearly so strong as formerly. The intelligent management and humanitarian methods now almost universally carried out have had a very beneficial and salutary effect on public sentiment.

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*Delivered before the annual convention of the STATE BOARD OF CORRECTIONS AND CHARITIES.

## HISTORY OF THE INSANE.

THERE hangs on the wall of one of our state asylums a picture of the insane in chains and shackles; treated like criminals, confined in dungeons with the worst of criminals. These barbarian conditions existed until about the beginning of this century when an organization known as the Friend's Society was formed, and through the efforts of this body public sentiment was aroused to the great and criminal injustice being done to these poor unfortunates. It was at the close of the last century that what is known as the New York Retreat Asylum was founded under the management of this same society of friends, and under their guidance a new system of caring for the insane was adopted. The chains and shackles were thrown off, and those confined in dungeons were brought forth. Many who had been in chains and dungeons for years were released. The old system was abandoned, and a new method consisting largely of moral influences was adopted, and the result surprised even conservative England. This system only needed a trial to convince the most skeptical that it was based on correct principles, and after this great awakening in public sentiment more attention was given to the study of insanity by medical investigation. It is necessary to remember that our knowledge of the intimate working of the human body, and likewise of the human mind, was very limited at this period, and the scientific investigation in relation to the function of the brain and nervous system, as well as many of the important internal organs was meagre. Not even did we know that the blood ran through our bodies. But a better knowledge of the study of pathology, the changes that take place in the brain and nervous system of those who are suffering from insanity, revealed unmistakable evidence of this very important fact that insanity under all conditions, and all varieties, depended upon some derangement, disturbance, or abnormal state of the brain or nervous system; or, in other words, a disease, and must be relegated to the domain of medical science; and in the light of recent labors in relation to cause and effect, we are compelled to conclude that diseases of the heart, and likewise diseased conditions of the reproductive organs of the female, will cause a derangement of the functions of the brain; and every physician well knows the relation which syphilis bears to the operations of the mind. DOCTOR ALICE BENNETT has reported to the Pennsylvania State Medical Society, a series of sixteen patients, generally past the middle of life, where the delusion appears to be due to cardiac disease. This same authority gave also a report of remarkable coincidence: in three hundred patients a certain distinctive form of mania had been found to be associated almost without exception with valvular disease of the heart.

### IMPROVEMENT IN ASYLUM CONSTRUCTION.

In 1874, at the first meeting of the National conference of Charities and Corrections, Doctor Chapin, of New York, attacked most vigorously the system then almost universally in vogue of constructing expensive congregate buildings at a cost of from $1,500 to $3,000 per patient, while the commonwealth was still unable to provide for many of its insane. Soon advanced thinkers in the profession and out of it advocated a more simple, less expensive, and safer method of construction, namely, what is known as the cottage system. Instead of one large lineal building with a capacity for hundreds, several buildings are now erected two stories high with a capacity of from twenty-five to fifty. The trustees of the new asylum now being built in this state, after careful investigation, have adopted the cottage system on account of economy and affording various facilities for classification of the various forms of insanity, greater security from fire, and better ventilation, and in every particular is this system superior to the old. This advanced method of asylum construction, in possibly a modified form, is being adopted in the Eastern States, and instead of a cost to the state of $1,000 a person, good buildings have been erected for $300 and furnished, in the state of Massachusetts, and for a little more cost in our own state.

### COMMITMENT VOLUNTARY.

There are a certain percentage of persons in every community who appreciate their condition even before medical assistance is consulted, or even the attention of friends called to them. I refer to those in the incipient stage of insanity, or what some are pleased to designate as the "border-land" of insanity. The notoriety necessitated by complying with the legal form causes delay, and in this class of cases, the longer proper treatment is delayed just so long is recovery retarded, and as one eminent superintendent puts it, the most valuable period, namely, the first stage, is passed, and subsequent treatment does not yield as good results. There are others who have what is known as lucid intervals, and yet another class, says *The Journal of Insanity*, that are nervous invalids, who have not so far lost their reason that they could be declared lunatics, but yet whose minds and nervous systems are so far disordered that they need the same care and treatment as is given at an insane hospital. And there is still another class who are not strictly insane, but whose minds are as much disordered as are the intellects of many regularly committed. I refer to victims of various drug habits. They may or may not be responsible for their condition. Many have become slaves to the use of opium or alcohol or cocaine or other fascinating drugs from their prolonged, and, in some instances, indiscriminate, use in disease. The above is only a partial list of those who would be vastly benefitted if they could avail themselves of voluntary commitment. There might be added the neurasthenic from whatever cause, cases suffering from hysteria, chorea, hypochondria, worry and fatigue, with inability to sleep. In the state of Pennsylvania the law permits of the admission of voluntary patients to an asylum on their signing a request for admission, witnessed by a friend and approved by a physician of the asylum. The admission being for a period of seven days with privilege of renewal. In the state of Connecticut a patient can commit his or her self upon his own written application to any asylum in the state, but must also be discharged on a written application within ten days.

The English Lunacy Act passed in 1890 provides for the voluntary admission of patients into an insane asylum, permission being granted by the members of the English Lunacy Committee or by two Justices of the Peace, subject to permission to leave if patient makes a written application within twenty-four hours after application is made.

Perhaps the most beneficial results for voluntary commitment is instanced in the state of Massachusetts, at the McLean Hospital. DOCTOR EDWARD COWLES, Superintendent, in speaking of the results of this system in connection with this very high standard institution, said: "It has been in practice here for nine years and has yielded most excellent results. Not only has it been a blessing to the many patients who have gladly availed themselves of its benefits, but it has done good to the asylum itself in stimulating improvement in the cure of all its patients. Intelligent patients appreciate the privilege of avoiding a formal examination and the dreaded declaration of insanity. By being able to avoid publicity they seek care and treatment earlier and under the consciousness that it is their own act." It is a significant fact, says DOCTOR COWLES, that in nine years' working of this voluntary law in Massachusetts little criticism has been made upon it, much good has come out of it, and of a kind that none but those who make use of it can properly appreciate. About one-third of the cases at the McLean Hospital come of their own volition, and there is a record of thirty-eight per cent. recoveries.

This line of argument could be further enlarged, but the evidence would be only cumulative, which is beyond the scope of this paper. The time is ripe for such an act in our state, and I hope that steps will be taken in the near future providing for voluntary commitment.

## COMPULSORY OR LEGAL COMMITMENT.

IT is very interesting to pass in mental review the various methods of legal commitment of the insane in the different states and to notice also the progress made in the legal steps taken at different periods during the last hundred years. But I shall not dwell on this part of my subject further than to notice that commitment is made by or on the decision of a justice of the peace, and in five states the form is still (if not recently changed) just about the same as was used a century ago. These states are Virginia, North Carolina, West Virginia, Tennessee, and Indiana. Commitment by trial by judge and his decision as to a person's insanity in eighteen states and two territories—Louisiana, Florida, Rhode Island, Wisconsin, Oregon, Washington, Nevada, Michigan, Idaho, South Carolina, Missouri, New Jersey, California, Alabama, Arkansas, Ohio, Montana, Massachusetts, territories of Utah and Arizona. There is not a uniformity of method in the above mentioned states. Although the judge is the final arbiter, still, usually, if not always, the testimony of witnesses, including one or more physicians, is considered. Maryland, Mississippi, Colorado and Wyoming require a jury trial by laymen, no medical testimony being necessary, the state functionalizing as plaintiff, and the patient as defendent, the county attorney representing the state, and the patient being represented by his counsel. This method of procedure is essentially that adopted for minor criminals in police courts, and has but one element to recommend it, namely, that the testimony of two qualified physicians shall be a part of the proceedings, but the latter have no power to prevent the alleged insane person being treated with all the rudeness and forcible restraint which characterizes the arrest of a common criminal. Many times the poor unfortunate insane, owing to the peculiar nature of their delusions and hallucinations, become the sport of officers, very often aggravating the condition of the patient when quiet, sympathy, and seclusion are absolutely requisite. Illinois, Kansas, and Minnesota require commitment by a mixed jury of laymen and physicians. Iowa, Maine, Dakota and Nebraska have a Lunacy Commission made up of one or more competent physicians, a respectable practicing lawyer, and a judge of probate, who are permanent. In some states a committee is composed of officers of the asylums who decide as to the necessity for commitment. In one state the Superintendent and Board of Trustees of the Asylum may admit on application any person being a lunatic and resident of the state, and with no other lunacy proceedings. This method has the advantage of the skill of the specialists but is not without objections. In England, and in many of the states the testimony of a physician connected with the asylum in which the patient is to be committed is not considered wise or judicious, and is illegal in our state, although there is an evident advance in public sentiment in the recognition of a higher grade of medical examination.

In our own state the law is much the same as in the states of New York and Pennsylvania, and has some features which commend it above the methods of commitment in many other states. It requires the personal examination of the alleged insane person by two physicians of reputable character, graduates of a regular incorporated medical college, and having at least three years actual practice (Pennsylvania five), their findings to be subsequently passed upon by a judge of record. This latter method has received the commendation of the distinguished ex-Commissioner of Lunacy of New York, DOCTOR STEPHEN SMITH, but he deplores the inadequate teachings of our medical schools respecting the different forms of insanity. It is a fact that a practitioner in our state may fulfill all the legal requirements of the above statutes, and yet have very little or no knowledge of the science of psychiatry. It is true that in many cases the lines are so distinct between sanity and insanity that any person could detect the difference, on the same principle that any intelligent person can distinguish a raging fever from a natural and normal temperature, but it must also be conceded that there are very many cases of suspected insanity that require and demand of the examining physician more knowledge than has heretofore been taught, as in many of our colleges no lectures, either didactic or clinical, have been given during the whole collegiate term, hence the insane person is to many an enigma.

I am compelled to admit that this condition or want of opportunities for the study of this important subject is not to be laid at the door of the management of our asylums. Only recently the National Association of Asylum Superintendents passed a resolution that clinical study should be encouraged when an opportunity offered, and SUPERINTENDENT RICHARDSON, of the Columbus State Hospital, refers to the lack of desire on the part of medical colleges for a closer alliance with the hospitals for the insane, stating that they had even tendered the colleges there the use of the institution for clinical instruction without any steps being taken to accept. There are a few of the progressive medical colleges both east and west which have had special courses established for a long time. I can well remember the classic lectures of the late eminent DOCTOR JOHN P. GRAY, Superintendent of Utica Asylum, New York, at Bellevue college, which were supplemented by his exhibition of patients of each form of insanity in different stages, giving the student knowledge which formed the basis for subsequent study similar to that which is taught in referring to the pathological condition of other parts of the body. In our own state this subject has not received the attention that its importance demands, and I cannot but refer to the vast opportunities offered in our asylums since they contain all grades and stages of insanity. During the past few years the Superintendent of our Eastern Asylum has received brief visits from the classes of our colleges, and he has given them all the attention and instruction that such visits afforded, the benefits of which are hard to estimate.

## FORM OF COMMITMENT.

WITHOUT unnecessary amplification it is a recognized fact that the form of commitment in use in our state by the physicians called upon to examine patients before our probate court is deficient in many essential elements referring to requisite information that should be elicited in regard to patients—heredity, treatment, et cetera. The questions to be answered in the prescribed blank forms in use in our courts are very primitive, and do not necessitate anything more in relation to the person's condition than a mere statement as to what the grounds are upon which the opinions of the examining physician are based. The patient being adjudged of unsound mind, he may be suffering from mania, melancholia, or dementia; it may be acute, subacute or the chronic form; or he may come from a family with a strong hereditary taint of insanity; or it may be due to some obscure or recognizable disease; or he may have served time in an asylum before. There are many questions which ought to be answered, and such information should accompany the certificate of insanity. This information would be of great value to those who have charge of the patient, not only for proper and immediate classification and treatment—the value of which cannot be overestimated in a certain class of cases—but because it supplies valuable information that cannot be secured from the patient. Our legal form of commitment has been considered so incomplete that our asylum superintendents of this state have formulated a list of printed questions embodying information as above indicated and to be used by examining physicians voluntarily, but I learn from the court authorities that these are scarcely ever used.

DOCTOR STEPHEN SMITH, of New York, in his recommendations, pleads for greater uniformity among the different states in the form of legal commitment, and after careful study submits a list of very appropriate questions, which are to be answered in writing by the examining physicians and to accompany each certificate of insanity. They are as follows:

Patient's name, age, address, married or single?

When patient was born?

Where parents were born?

Occupation?

How many children, if married, and age of youngest?

Is this first attack, if not when and how often did other occur, also duration of attack?

When were the symptoms first manifested, and in what way?

Does the disease appear to be increasing, decreasing, or stationary?

Is the disease variable, or are there rational intervals, if so, do they occur at regular periods?

On what subject, or in what, is derangement so manifested? State fully.

Has the patient shown any disposition to injure others?

Has suicide ever been attempted?

If so in what way is the propensity now active?

Is there a disposition to filthy habits, destruction of clothing, et cetera.

What relatives have been insane?

Did patient manifest any peculiarities of temper, habits, disposition, or pursuits before the accession of the disease, any predominant passions, religious impressions received?

Was patient ever addicted to intemperance in any form, or the habitual use of narcotics?

Has patient been subject to any severe disease, to epilepsy, to convulsions, or had any injury of the head?

Has any restraint or confinement been employed? If so, of what kind and how long?

What is supposed to be the cause of the disease?

What treatment has been presented for the relief of patients? Mention particulars.

## STATE HOSPITALS.

THERE has been a gradual evolution going on for some years in reference to eliminating the words "Insane" or "Lunatic" as applied to our asylums, and indeed the title of asylums, in the sense in which it has been used, is employed much less than formerly. The knowledge, although meagre as yet, that we have obtained from pathological study of the insane has wrought many desirable changes in the care and treatment of this dependent class. With other changes for the better the term asylum has been dropped and the more definite and humane term, hospital, takes its place in not a few states. The use of the term asylum, as formerly applied to a haven for criminals and refugees from justice, and as lately applied to places of shelter for unfortunate or destitute persons, and especially to places for caring for the insane, is not very suggestive of the many improvements and advanced ideas and cheerful surroundings which are found in our beautiful buildings of which we all feel so proud. While in many of our states the term hospital is in general use, they still retain the name of insane in contradistinction to hospitals for all kinds of infirmities. It remains for the McLean Hospital, in Massachusetts, to take the initiative in this new departure, as in many others, and all of these terms—lunatic, insane, and asylum—are more or less objectionable and have been entirely discarded, and this magnificent institution, where all modern methods are supplied without regard to expense, shall be known simply as the "McLean Hospital."

Recently while visiting this institution the medical officer gave as reasons for such a change—(1) That insanity was becoming more and more looked upon as a disease and largely amenable to treatment, and should be regarded as a diseased condition of the parts of the body. (2) That greater efforts are put forth in determining the pathological changes that take place in the brain and nervous system, as well as other organs, with more advanced methods of treatment and with better results. (3) The odium attached to and following those who are improved and cured is not nearly so great when confined in a hospital as when confined in an asylum or insane hospital, and many of those discharged as cured having to go out and against competition earn a livelihood for themselves and others dependent upon them, the stigma of being a discharged lunatic has militated against their subsequent success very materially.

## MEDICAL RELATION TO THE INSANE.

As being germane to this whole question there is none of so great importance, and in no department of the care of the insane has there been so much criticism, as the want of medical and surgical attention. This question has received a new impetus since the presentation of the subject by the eminent neurologist, Doctor Weir Mitchell, of Philadelphia, before the National Association of Asylum Superintendents. I find that there are those among the general profession who seem to have an exaggerated idea in relation to disease, for instance, of the reproductive organs, as being responsible for a large number of the cases of insanity, especially among females. There are those who have the care of the insane who take the position that these diseases do not exist in the patient, but only in the mind of the would-be surgeon. Between these two extremes there is the "golden mean." I believe, as near as can be ascertained, that about twenty-five per cent. of insanity among females is due either directly or indirectly to some disease, either organic or functional, of the abdominal or pelvic organs. Cardiac diseases have also been recognized as a factor in producing mental derangement in the brain by interfering with the circulation. Syphilis has also been found to stand in relation of cause in not a few of the chronic insane, and where it is properly diagnosed and appropriate treatment applied improvement has occurred. Dements and epileptics are frequently found to be syphilitic, and I have no doubt that this loathsome disease, reaching, as it does, and affecting every part of the human organism by its subtle influence, is more frequently the cause than is supposed. A case in point as an illustration of the subtle effect of this disease: The patient, a man seventy years old, was the father of seven children, two of whom were cripples, while the other five gave evidence of congenital syphilis. Four grand children were also defective. This man being ill from seemingly trivial trouble did not recover satisfactorily. Counsel was sought and an investigation elicited his admission of suffering from the disease in early life, but he thought a cure had been effected forty years ago. A knowledge of this case satisfied the physicians that the mental and physical defects were due to this cause alone. This disease is now recognized by the intelligent physician in general or special practice, but concealed for reasons which are too well known to all of us. Nevertheless we are reaping the harvest and the victims of this disease are to be found in our alms houses, insane hospitals, and contribute a larger per cent. to the population of dependent and defective classes than we are willing to admit.

During the last decade or two there have been wonderful developments revealed along the line of medicine and surgery. Diseases which formerly stalked abroad with death following in their trail have to a great extent been robbed of their terrors, and the knowledge we as physicians possess regarding the prevention of disease enables us to become masters of the situation when we meet formidable diseases, while a very few years ago we could only stand powerless before the common enemy. From whence came these results? I point you to the experimental and pathological laboratory. Although we have not yet found the microbe of insanity or the bacillus of lunacy, yet, in the words of the former distinguished Commissioner of Lunacy, of New York, "insanity is now recognized in its various phases as a morbid or abnormal condition of the system, and must be studied as a disease acute or chronic in character, and in every stage requiring most skillful medical care and treatment." The fact that there is much obscurity in connection with the normal action of the brain as well as in the pathological condition only emphasizes the necessity for greater research and the most scientific pathological investigation. The very important advances that have been made in the anatomy and histology of the brain and nervous system has enabled the physician and alienist to appreciate more than formerly that insanity is a disease, or rather the result of a pathological condition, and should be studied as such. The interest with which the study of insanity, both in relation of cause and effect, appeals to the medical mind is not less than that of disease in any other part of the human organism, and there is certainly no field in the whole category of human affliction that offers a greater field for study and investigation.

In the report of the Commissioners of Lunacy and Charities for the State of Massachusetts, heredity and intemperance are among the most frequent causes in their hospital. Next to these are classified a large list from the various diseases occurring in everyday practice entirely physical in their nature.

## ADMINISTRATIVE DUTIES OF SUPERINTENDENTS.

In our state we have three large asylums with approximately one thousand patients in each, not taking into consideration those cared for at the Wayne County Asylum, the criminal at Ionia, and those scattered in the county houses of the state, as well as those in their homes, and with an annual increase in the state of about two hundred and fifty during two years. The vast amount of work, not medical in character and purely executive or administrative, in connection with one of these large institutions renders it quite impossible for the superintendent to give adequate time and his best skill and energy to this side of the question. The important and exacting constant demands of an executive nature are liable to interfere very seriously with the distinctly medical relations existing between superintendent and patient, so much so that I am forced to conclude from my own observation as well as that of others, that the visits made are not of such a character as redound to the most benefit to the patient as well as scientific clinical results. In the language of the Commissioner of Lunacy of Massachusetts: "The visits, so-called, are made at regular intervals, but may amount to little more than inspection." The vast opportunities for scientific study offered in those large institutions, have not produced results most desirable.

During my official visits to our asylums I cannot but admire the general management. It is of such a high order, especially in our own state, as to command our highest commendation. The discipline of attendants, the careful and wise classification of patients, the more humane method of non-restraint practiced whenever possible, and the attention paid to friends and relatives of patients, both in person and by correspondence, entails a vast amount of labor and intelligent discrimination in reference to the past, present, and future condition of patients that must come through the superintendent. There is the problem of construction of buildings to be in keeping with economy, and yet, to serve efficiently those poor unfortunates placed under state care. While looking over the exhaustive plans and specifications recently with one of our superintendents, he said: "This is what takes our time and our energy in addition to the multitude of exacting duties not strictly medical." No one appreciates the situation better than the superintendents themselves. Notwithstanding all of the above difficulties in the way of the very best medical administration, we have in our state asylums those who possess administrative and medical ability of a very high order, but to expect that a superintendent, or even his assistant can give the required personal attention to every patient in one thousand, some requiring the special skill of the gynecologist, others the ophthalmologist, the surgeon, or perhaps the cardiologist, is to expect an impossibility. The insidiousness of many diseases with their great obscurity even when not masked by insanity is the great *bete noire* of the careful educated physician and surgeon, and even the specialist. I need but refer to the work already accomplished by DOCTORS PRICE, of Philadelphia, ROHÉ, of Baltimore, and MANTON of our own state. DOCTOR GEORGE H. ROHÉ, Superintendent of Spring Grove Hospital for the Insane, Maryland, within a month, has informed me that "Thirty per cent. of my operated cases, otherwise apparently hopeless, have recovered mentally and physically and have been discharged from the hospital. With the exception of one who died after discharge, the others are at home attending their household duties." Said he: "I am more than ever convinced that careful physical examination of all patients admitted to an insane hospital is necessary to give such patients the benefits of modern medical and surgical skill, and further we can only attack mental derangement through the physical organism." Our greatest duty, then, is to put our finger upon the portion of the physical organism that is diseased, and remove the disease if practicable, even if the mental derangement is not due to the physical disease discovered. Our duty is none the less plain to give our patients the benefits of such skill as physicians and surgeons possess. DOCTOR ROHÉ also alludes to the statement made by DOCTOR WEIR MITCHELL and others, that a physician could not be a good superintendent and know anything about his patients. This statement, said he, is not true; you have examples in your own state that prove its falsity.

In general practice the instance in which vast benefit has been derived to the sick from a careful consultation of skilled physicians and surgeons who have directed their studies along certain branches of medicine, occurs so frequently that not only the physicians recognize its value but also the general public. The application of the same principles in the care of the state patient would, I have no doubt, be productive of even greater results. The combined knowledge of the alienist, who has made a study of the brain and nervous system with the varied psychological phenomena with the trained special sense of the specialist, I feel sure would not only be a benefit to the helpless patient, but the interchange of ideas of a high scientific order, either as the result of clinical observation or pathological investigation, would naturally advance our knowledge of psychiatry in general. Our progressive asylum superintendents readily concede that there is not as much scientific work done as there should be, and acknowledge the necessity of a trained pathologist with the necessary equipped laboratory, and also the benefits to be derived from a corps of consultants, but truthfully reply that on account of the large amount of expenditure by the state in order to provide for the great and increasing army of insane in our state, in construction of buildings with their necessary furnishings, et cetera, there has been no provision for the dovelopment of a high class of scientific work. While we acknowledge the latter to be the true status, our state authorities have been generally liberal with the wards of the state, and our institutions, and especially our asylums, compare very favorably with many states. It is our duty to investigate, and by comparison with work done elsewhere, direct and point out the lines upon which the greatest good may be done to the greatest number at the most reasonable expenditure. I make the statement, and without fear of successful contradiction, that a small biennial appropriation for the purposes above indicated, would not only enlighten the whole medical profession, and by a gradual mental filtering process subsequently reach the masses and result in greater interest, but contribute to our knowledge of this obscure disease, and eventually be in the interests of economy.

From the stand-point of a physician who has given some attention to the methods of caring for the insane in this, as well as in other states, I would recommend, in addition to the excellent work now being done in our asylums—

(1) A change of title from Asylum to that of State Hospital for the Insane.

(2) That a well equipped pathological laboratory be established, with a pathologist provided where the changes and results of disease could be studied.

(3) That each State Hospital be supplied with modern therapeutic appliances, suitable for the administration of electricity in its various forms.

(4) The various forms of baths—Russian, Turkish, shower, plunge.

(5) That, in addition to the regular attending medical staff, physicians and surgeons, who are known and recognized as specialists in diseases in other parts of the human body, be recognized in the capacity of consultants.

(6) That in all of our State Hospitals where the female sex constitutes a large class of patients, that at least one female physician form one of the regular staff.

## TYPHOID FEVER.*

By G. WILSON FORREST, M. D., Fennville, Michigan.

[Published in The Physician and Surgeon exclusively]

It is not without some trepidation that I bring before you for discussion the much hackneyed subject of typhoid fever, for I am well aware that the negative position I assume is susceptible to adverse criticism; also that I feel deeply my incompetence to impart such useful points of information as may be deemed at all times reliable. The subject is an interesting and important one, especially so to the patient who trustingly places his life in our hands, and doubly so to us, who, abstractly, have in our keeping the health of the human race.

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*Read before the Grand River Medical Society at Zeeland, Michigan, November 13.

This is a most sacred charge and should stimulate us to acquire still greater proficiency in medical skill, that, under the strong light of science, we may possibly be enabled to snatch victory from defeat and human lives from the jaws of death.

Much has been written and said upon this subject, and the secular press of to-day seems to vie with medical journalism in expanding theories in regard to it, and we who are engaged in a general country practice often have had occasion to meet that wise layman who knows all about it and is always able to find a case of typhoid fever in every chill or bellyache, and who is really indignant because we do not agree with him. He has *had* it; he dates the events of his life from the first time he had it, therefore he *knows;* he also lets everybody else know; his name is legion.

I do not deem it necessary, nor do I consider it advisable, to inflict upon you at this time a reiteration of facts and theories with which you all are undoubtedly familiar in connection with this subject; therefore I will only touch upon those points which impress me as being of most particular importance to ourselves and vital interest to our patients.

Prior to 1836 typhoid fever was an unrecognized, therefore an unknown, quantity. At that time it began to claim attention and recognition, giving rise to opinions which were as numerous as they were indefinite and unreliable; but now, instead of philosophical speculations and the invention of ingenious hypotheses, a true method of observation and experiment governs the science of its pathology. Recently great advancement has been made and facts established by the researches of such noted observers as GAFFKY, KLEBS, EBERTH, KOCH and others, the results of whose labors in this field have done much toward unraveling the complex maze which has surrounded this dreadful malady.

You are well aware that typhoid fever is due to the entrance into a susceptible organism of a specific infecting principle, it being an organized pathogenic germ.

This obtains introduction into the human system principally by means of ingesta, and during its presence in the alimentary tract, finds welcome lodgement in the solitary and agminate glands which seem most susceptible to the degrading influence of this pestiferous principle. The affinity is doubtless due to the presence of a latent principle or element which at all times is ready and willing to welcome the vivifying force of this disease germ.

During the period of incubation there may but little excitement exist, but the prodrome having passed the wildest orgies prevail, rioting and destruction supervene, and once healthy organisms become putrid masses of pestilential disease, which fostering in their own filth, supply in abundance the toxic material that so deranges and endangers the system generally and the functional duties of the various organs particularly.

This brief and crude outline forms my conception of typhoid fever as it is, and admitting the truth of the theory, it necessarily follows that this disease is a purely local one—capable of producing intense constitutional excitement, and should be recognized as such. Being local, symptoms agreeing with and relating to locality must necessarily present themselves in a more or less pronounced degree, by which we are enabled to frame a positive and correct diagnosis, bearing in mind, however, that other local diseases of the abdominal viscera occur which in a measure simulate this dreaded type and may honestly be mistaken for it. I refer particularly to typhlitis, perityphlitis, enteritis, and appendicitis, though under close observation and careful application of differential rules I believe these may be excluded, and we can then base our action upon the secure foundation of knowledge. Here permit me to revise an old adage and say that disease well understood is half cured.

Regarding the prevalence of typhoid fever, I am strongly of the opinion that the number of occurrences is greatly exaggerated. In support of this opinion I wish to state that during my professional career I have made and assisted in making four autopsies in which the cause of death was found in two cases to be peritonitis resulting from opening of hepatic abscess into the free abdominal çavity, intussusception in the third, and appendicitis in the fourth, yet the reported cause in each case was typhoid fever. These facts are significant and point in no uncertain manner to the unnecessary and harmful multiplication of cases of this terrible disease. I say harmful because the universal dread of this monster of misery is amply qualified to produce in numerous individuals an abnormal state of mental excitement or depression and yield unwelcome results, even in the most simple of cases.

Early in the period of invasion typhoid fever may be recognized by its peculiarly distinguishing features, which are those abdominal symptoms referring to the intestinal lesions, and briefly noted are as follows: Pain and tenderness of abdomen—especially in right iliac fossa, fecal discharges of the ochre-colored and pea-soup variety, and rise of temperature to over 103°. Robbed of the numerous accompanying indices, these are the landmarks, and these only, which guide safely to a positive, honest and correct decision. And this is typhoid fever as we find it.

The use of antipyretics in the treatment of this disease seems to meet with the greatest amount of favor, and I believe most emphatically in this system of therapy. I can heartily recommend the sponge bath, also the cold pack, though I would prefer the use of the BRANDT treatment if convenient. Internally, I would exhibit sulphate of quinia to cinchonism. I think the solution with aromatic sulphuric acid preferable. Digitalis also is of immense value as a therapeutic agent, owing, probably, to its beneficent influence upon the vasomotor nerves. In the early stage a light mercurial will many times obviate serious difficulty; later, opiates are indicated, good nursing, perfect cleanliness, plenty of fresh air, and the free use of disinfectants are always in order and should be firmly insisted upon.

Regarding the diet, in my opinion milk should be the chief article with an occasional variation in favor of mutton broth and beef tea, but the milk should not be forgotten.

In conclusion, my fellow-workers, permit me to say, that in all cases our duty is plain. When called upon to exercise our professional functions, let us in the most critical manner, under the light of science, carefully analyze the varied symptoms presenting, deduce reasonable and logical conclusions, and then we may, by the use of common sense, discernment, good judgement and the application of the most approved successful therapy, succeed in arresting the course of disease and ward off the nearer approach of the arch enemy of mankind, bring relief, comfort, and health to a suffering patient, peace, joy and happiness to a despairing family, and honor with blessings to ourselves.

# LECTURES.

## SEXUAL INVERSION.

By PAUL BLOCQ, M. D., Paris, France.

[PUBLISHED IN The Physician and Surgeon EXCLUSIVELY]

Gentlemen: Sexual inversion has been known since ancient times, and has often caused moralists and legislators to talk of it as well as literary men to write about it, but it is only in late years that medical men have taken the matter up as one belonging to pathology; indeed it is not yet admitted by all of them that we have here to do with a pathological manifestation. We, ourselves, think that it is a real *morbid phenomenon*, which is important for all who practice medicine to study and be able to recognize when met with in practice, and we will give our reasons for this statement later on. We will place ourselves, in this discussion, in the medical point of view only, disregarding the legal one.

It is important, first of all, to explain what we mean by sexual inversion, and show how it differs from the other perversions of the genital instinct. We may arrange these aberrations in three classes: (1) Where the instinct is abolished, impotence and agenisis. (2) When it is exaggerated, satyriasis and nymphomania. (3) Perversions. This last class includes onanism, fetichism, masochism, and sadism. Then comes *inversion*, which may be defined as a sexual attraction between individuals of the same sex—homo-sexuality. In man we may, according to Moll, give it the name of uranism, keeping the expression, pederast (sodomist) for the group of persons who practice coitus in ano. In woman it is called tribadism, saphism or lesbism, according to the method they may employ to produce the sexual orgasm.

Sexual inversion may exist in a state of simplicity, or it may be associated with one or the other of the states we have mentioned above.

We have already said that the medical study of this state is quite modern, but the phenomenon was mentioned in the bible and in the ancient history of different nations. Among the first of the scientific writings on the questions to be mentioned is a work by Kaans called "Psychopathia Sexualis," and another by Casper. This, however, was all that was written of importance up to the time of Tardieu (1858), whose writings on this subject remained for a long time the only monograph in existence. In 1870 Westphal studied the matter and did not hesitate to consider it a *morbid* episode depending upon a mental alteration for which he introduced the term sexual inversion. In 1882 MM. Charcot and Magnan published a work in the "Archives de Neurologie," which marked an era in the question. "The inversion of the sexual instinct" was the name proposed by these authors, and it has been since generally used in France, where it is spoken of as one of the syndroma of hereditary degeneration. We find next, a book by **Tarnosky**, who demonstrated the fact that inversion may be a result of certain mental and nervous affections, notably, epilepsy. After this came the great work by **Kraft–Ebing**, whose last edition of 1891 is certainly the most important monograph on the question of sexual perversion. M. **Binet**, in *Revue Philosophique* afterwards published an article on "Fetichism." We will not dwell on the remarkable works of **Professor Brouardel** nor those of **Lacassagne**, as they deal mostly with the medico-legal side of the question.

Two very new articles by **Chevalier** and **Moll** were inspired by quite different conceptions of inversion. **Moll** considers it as essentially pathological in its nature and **Chevalier** divides it into two classes—inversion-malady and inversion-vice. The first he says is congenital and the last acquired. We think that it is very difficult to admit this dualism. **Chevalier**, though, insists that clinical facts permit of his division of these cases into three classes: (1) Acquired inversion (by perversity). (2) Secondary inversion (by a viciation of the sexual type—femininism, masculinism, hypospadias, hermaphrodism, or by the mental diseases, mania, melancholia epilepsy, et cetera). (3) Congenital inversion (by perversion or degeneration). This classification is inspired by *a priori* reasoning, and we do not agree with it for several reasons. As to his first class, one cannot consider the "*professionals*," for instance, who practice a vice simply as a means of gain as being attacked with inversion, for they do not have the homo-sexual attraction which is the only characteristic feature of this malady. As to the second class of this author, it is by no means demonstrated that femininism or masculinism of itself indicates inversion, while the other maladies mentioned should take their place in the usual hereditary diseases. We find the conception of M. **Moll** much better. He does not try to find an inconsistent etiological element in each class but at once establishes the fact that *inversion constitutes by itself a pathological phenomenon*, and the fact that a person is attacked by it ought to range him at once in the class of abnormals.*

These patients present their symptoms singly or associated with other pathological manifestations such as degeneration. One may compare sexual instinct to the instinct of nutrition whose object is to assure life to human beings, and then compare abnormal facts in each process. Take hunger, for instance: it recalls to the normal organism the want of food, but of course we know plenty of states where this instinct is wanting and yet the stomach is in a normal condition. It is probably the same in a man whose sexual organs are in a normal state and yet his instinct is perverted. That is to say, it is easy to understand that the genital instinct can present the same abnormalities that the other functions do. Nevertheless, the objection will be made that a person in good health is pushed by nature to perpetuate his species, and one cannot qualify as morbid the absence of sexual desire when its reproduction is possible, for it is known that some uranists have had wives and had children by them. But take up the comparison again. We can see also that there is no sufficient reason for denying the pathological nature of inversion in these facts, for no one, for instance, will deny that the absence of appetite is pathological whether the

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*Just as M. **Danville** shows, in a work inspired by us, in the ***Revue Philosophique*** on "The Physiological Nature of Love." He says "Love is a product of emotional development in a physiological point of view and a particular modality of the general mechanism of thought in a psychological point of view, and it is far from constituting a morbid form of regression, for it comes from a normal and progressive mental evolution."

organism receives the usual quantity of food or not, and the default of sexual propensity is likewise a pathological fact whether coition is possible or not. The same is the case when the homo-sexual tendency exists with the normal desire. The comparison is possible also with those persons who have a taste for indigestible substances, such as chalk, lead, et cetera. These are pathological tastes and yet the normal one for nutritive substances may and often does exist with this state. We therefore think that MOLL and KRAFT–EBING are right in qualifying as pathological sexual inversion.

In our present description of this state we shall refer mostly to man, as it is most often seen in males. There are first of all a certain number of general characters of the malady. It may reveal itself as soon as the genital functions commence, or may come on later in life. Again it may be a regular pathological state in hereditary insanity or general paralysis. Inversion sometimes proceeds by intermittent attacks and during the interval the patient may be normal, or it may exist alone as we have seen, or again be combined with other genital perversions. As to its degree of intensity it may be ordinary or excessive in tendency.

The most important signs are those that relate to the anatomical constitution of the patient, their tastes, tendencies and mental states. We will insist on the *simple* cases mostly, as they are mostly seen. There is here no mixture of vices or malformation of organs or mental illness. Most of these patients are normal in a physical point of view, and it is the exception that there is any modification of the organs or any difficulty in the normal function being performed.

The first thing noticed in such patients, as a rule, is *effeminacy*. This modifies the physiognomy, voice, attitude and walk. It must not be supposed, though, that all persons who act and walk like women are of this class, nor that there are not any uranists who preserve the normal appearance of man. It is only to be remarked that many of them take the woman type, or at least they imitate it and make efforts to reproduce it artificially by shaving off the beard or moustache, some going so far as to have it pulled out (epilation). If they have not naturally a soprano or alto voice they will try to cultivate one. ULRICHS states that they cannot whistle but this sign is not proven. They will adopt woman's handwriting, and walk with their short steps, raising the knees and imitating woman's walk in every way, even to exaggeration.

As to their tastes and tendencies they are the same as many women, as they seek for woman's dress, paint and powder themselves, and wear many rings, bracelets and other jewelry. They will adopt ladies' silk stockings, high heeled boots and even wear corsets. The furniture of their rooms will show the same tendency, with a profusion of fans, toys, and perfumes. Some of them will even work at crochet and women's needlework. GYURKOWECHSKY says that they resemble women more than men by their caprices, changeableness, and facility for telling lies (not gallant) while they have an excessive prudery.

Their intellectual state is not, however, as a rule bad, as they have been known to direct large business enterprises with some ability. They possess a real aversion to women and never approach them if possible. This sentiment is variable among them, for some of them have been known to court women, but it is thought that they did so to disguise their real feelings and predispositions.

As to their sexual feelings, they make psysical manifestations of inversion by making the actual love they seem to feel to the person they have chosen and express their passion just as normal men do for the women of their choice. They seem to feel the same passion as men do for women and express it strongly in letters of which many hundreds are extant. The manner of satisfying their passion is different according to the case. They are by no means pederasts or sodomists. Some practice *coitus in ore*, or reciprocal masturbation and other methods of unnatuaal sexual indulgence. It is by no means true that they are mostly young boys; they are often men in middle life and indeed advanced age, one case being given at eighty years of age.

The diagnosis of these cases often presents great difficulties owing to the fact that they deny everything. MOLL suggests that they be first asked if they dream of men when they have pollutions. According to their own confessions they know one another by an oblique look of the eyes, but this sign is certainly very indefinite.

As to the frequency of this malady MOLL says there are from four hundred to five hundred uranists in Berlin alone, and ULRICHS states the proportion as one to two thousand. There is a certain predisposition to this state, says KRAFT-EBING, but this cannot be proved.

A large number of theories have been proposed to account for the genesis of this state. MANTEGAZZA thinks that it is anatomical in its origin. For instance, in passive sodomists, the nervous filaments which should be distributed to the genital organs are given off to the rectal mucous membrane, but there is no demonstration given of this idea. As the normal excitation of these nerves comes from the brain and cord it is more likely that MAGNAN and GLEY are in the right in thinking that it is a corticle trouble. KRAFT-EBING is also of this opinion, and while we have no confirmation of it by post-mortems, still, it is a possible explanation of the state. Personally, we share the ideas of MOLL, who thinks that there is an abnormal genital instinct in these cases simply because this instinct in degenerated subjects is their *locus minoris resistentiæ*.

Inversion in women has the same general characters. They imitate man in dress and manners, carry a cane rather than a fan, smoke a cigar and seek men's occupations and habits. Many of them are saphists, but some have no actual sexual relations with others at all.

Besides these *simple* forms, there are *complex* ones, such as the psycho-sexual, hermaphrodism, inversion with perversion, inversion with malformation, and inversion with mental affections.

In late years a number of cases have been seen of inversion with fetichism. This consists in the subject having an affection for some article of the loved one's dress, or braid of her or his hair and other articles. In what is called *sadism*, the patient accompanies the desire for the person with a desire to hurt him, and the more they do so the better satisfaction they derive from their association with the one they care for. What are known as *masochists*, are those inverted subjects who desire to be hurt themselves. Flagellation is the method most in use among them. It is probable that all of these varieties are from a common origin, that of hereditary degeneration.

It is rare that the uranist considers himself a pathological subject and comes to ask advice of a doctor. He knows his shame and his perverted acts and tries to dissimulate them when questioned about his acts, so that the difficulty of catching these cases is great outside of the great public institutions.

*About treatment:*—Two indications present themselves. In some of these subjects there is a sort of hyperesthesia of the genital organs and this must be met by proper medication. Warm douches, bromides, and camphor combined with lupulin are useful drugs, and in the other cases one can insist on their returning to the normal as regards sexual life. Sometimes this is best carried out by suggestion without hypnotism. Surgical intervention by castration has been suggested.

# TRANSACTIONS.

## DETROIT MEDICAL AND LIBRARY ASSOCIATION.

### STATED MEETING, OCTOBER 15, 1894.

THE PRESIDENT, EUGENE SMITH, M. D., IN THE CHAIR.

### THE LATE DOCTOR LYSTER.

THE following resolutions were adopted:

WHEREAS, DOCTOR HENRY F. LYSTER has been removed from us by death; and

WHEREAS, He was one of the charter members of this association and a regular attendant upon its meetings and an earnest and active worker in its deliberations; therefore be it

*Resolved*, That the Detroit Medical and Library Association has met with a loss that will be long felt, and that the name of our departed brother cannot fail to bring pleasant and tender recollections to us all, for he was not only a thoroughly educated and scientific member of our profession but a dignified and courteous gentleman.

*Resolved*, That we tender our heartfelt sympathy to his bereaved family, and that as a token of respect, a copy of these resolutions be sent them, and also that one be given to each of our city papers for publication.

### REPORTS OF CASES.

DOCTOR TAPPEY reported a case of appendicitis and exhibited an appendix he had removed by operation. There was a history of two previous attacks. On examination he found elevation over McBURNEY's point, with pain and a temperature of 101°, and advised immediate operation. When the abdomen was opened a large amount of serum was found and some pus. The appendix was adherent to the posterior wall of the cecum. The patient was taken ill in church yesterday morning. This morning perforation had taken place. If we had waited the chances of recovery would have been very much less. The tissues had softened so much that the ligature cut partially through. The operation was successful. At 5 P. M. the patient was in a very good condition.

DOCTOR CARSTENS spoke of the necessity of operating within twenty-four hours. MURPHY says that twenty-four hours is often too late. We should operate in twelve hours.

DOCTOR McGRAW reported a case of appendicitis operated upon in Kingsville, Ontario. The patient had been ill for four weeks and was better in three or four days. There was inflammation of both parotid glands, a metastatic parotitis. Patient was doing well until Wednesday. I was called on Friday. The abdomen was flat and there was some tenderness over the iliac fossa. Upon operating there was found alongside the cecum a mass of black blood stinking and fetid. I could not find the appendix. I washed out the blood and put in a drainage tube. Not a particle of pus was found. The parotitis was caused by the absorption of decomposed blood.

**President Smith** reported a case of acute mania following operation for cataract.

**Doctor D. M. Campbell** reported a similar case.

**Doctor Carstens** exhibited a specimen of myoma of the wall of the uterus, the symptoms of which had simulated pregnancy. Also a specimen taken from a case of tubercular peritonitis. **Doctor Carstens** also exhibited the ruptured tubes taken from a case of extrauterine pregnancy in which the patient had died from internal hemorrhage caused by the rupture of the tubes.

**Doctor Longyear** reported a case of myoma simulating pregnancy similar to the case reported by **Doctor Carstens.**

### DISCUSSION OF PAPERS.

**Doctor McGraw** read a paper entitled "Early Operations in Cancers and Tumors."

**Doctor Tappey** said he was particularly interested in the doctor's opinion in regard to the curability of cancer by early operation. He reported a case of recurrent epithelioma over the sternum that he had operated upon ten years ago. Since that time there had been no recurrence. He advocated the removal of all tumors as soon as discovered.

**Doctor Longyear** spoke of the difficulty in making diagnoses from the small bits removed from living tumors. He thought the lack of experience of country practitioners was often responsible for fatal delays.

**Doctor Bonning** thought it the duty of the practitioner, where diagnosis is not clear, to send the cases to men capable of making a diagnosis.

**Doctor Carstens** agreed with **Doctor McGraw.** Disease comes on so insidiously that it is often incurable before it is discovered.

**Doctor Carrier** said it would be well to consider all tumors suspicious. He spoke of the difficulty of telling how far the diseased tissue extends.

**President Smith** said he was particularly interested in the part of the paper referring to the eyelids. The use of skin grafts is reported successful in recurrent epithelioma. He was of the opinion that the hardened base limits the diseased tissue. **Luther S. Harvey, M. D., Secretary.**

## STATED MEETING, OCTOBER 22, 1894.

President *pro tempore*, DONALD MACLEAN, M. D., in the Chair.

### REPORTS OF CASES.

**Doctor Chapoton** presented a most interesting case of aneurism which was examined with much interest. Two years ago the patient, a man, complained of pain in the chest. When at rest the pain was severe, but when working the pain was unnoticed. The patient exhibited a tumor on the left breast the size of an infant's head, having a loud bruit and pulsating in all parts. The heart sounds were perfect. The doctor proposed to give the patient the benefit of electro-puncture to prevent if possible the impending disaster.

Doctor Longyear thought the thanks of the soeiety were due to Doctor Chapoton for having presented so interesting a case. It could hardly be considered an aneurism of the aorta from its site. He hoped the doctor would give the result of the treatment.

Doctor Robbins: This base reminds me of one I saw in Harper Hospital ten years ago. The aneurism was of about the same size. The patient died after having been in the hospital one week.

Doctor Maclean: This is a very interesting case—one that should be carefully considered from every point of view. I am reminded of a case very similar to this, the aneurism simulating a tumor of the scapula. The tumor pulsated like this one and was the same in many respects. It had developed in three months. It was evidently an aneurism of the aorta. I saw the patient in the afternoon at 2, and she appeared to be in good, general health. I told the friends that there was no possibility of help by operation; that the case would terminate fatally. At 2 the following morning the patient collapsed and died very suddenly. The case was very similar to this one in all respects. In this case it appears from the slow growth that the communication with the aorta must be very small, and from this fact, electro-puncture holds out a great deal of hope. It may restrain the fatal issue which under the present conditions is not very far off.

Doctor Longyear had heard advocated passing in a long steel wire to form a clot.

Doctor Maclean asked Doctor Chapoton if he knew what the statistics are in regard to the success of electro-puncture.

Doctor Chapoton replied that in the abdominal aorta it was successful in many cases; in the thorax, very few. As regards the use of the wire, he knew of only one case in which the patient did not die soon after its use. One case lived eight months. They usually die within sixteen hours. The wire has pierced some other point of the sac.

Doctor Mulheron asked if the tumor could not be reduced by pressure.

Doctor Chapoton replied that the method is not successful.

## DISCUSSION OF PAPERS.

Doctor O'Dywer read a paper entitled "Reports of Cases of Intubation."

Doctor Chapoton: Any step forward in the treatment of laryngeal diphtheria is worthy of attention. I was surprised at Doctor O'Dwyer's remarks on the perfect safety of intubation. I have understood that the introduction of the tube is frequently followed by death. I may be mistaken. I would like to hear from the doctor.

Doctor Mulheron: I think the doctor is to be congratulated on his success. I have had no personal experience with this method. It would be interesting to know how much good is really accomplished; some cases very unexpectedly turn for the better. We should avail ourselves of this method in desperate cases. It should be preferred to laryngotomy as being less dangerous.

Doctor O'Dywer: I thank the gentlemen for the complimentary manner in which they have discussed my paper. Danger in the use of the tube is chiefly due to obstruction of the tube itself. Obstruction of the tube may be due to a fault in construction or to the manner in which the tube is introduced. If the tube is pushed off from the obturator before the tube is in place it becomes obstructed. I have never had an accident. The tube may be removed by a cord or by pressure upon the trachea. Stenosis does not recur within five hours after the removal of the tube.

**Doctor Chapoton** read a recent rule of the board of health requiring the quarantining of cases of measles for seven days.

**Doctor Maclean** moved that a committee of five be appointed with instructions to report at the next meeting on this order of the board of health.

The chair appointed **Doctors Chapoton, Maclean, Mulheron, Robbins** and **Hamilton Smith** said committee. **Luther S. Harvey, M. D.**, Secretary.

## STATED MEETING, OCTOBER 29, 1894.

### The President, EUGENE SMITH, M. D., in the Chair.

### EXHIBITION OF PATIENTS.

**Doctor Robbins** presented, for **Doctor McGraw**, a patient upon whom he had operated fifteen years ago. The thyroid had been totally extirpated two years before the publication of **Kocher**'s paper on cachexia strumapriva. Had suffered since from myxedema until June, when he began to take **Armour**'s thyroid extract, five grains, three times a day. It was too much. It caused rapid disappearance of edema but excessive weakness. The dose was reduced one-half. He feels now quite well.

**Doctor Samson** said he had seen the case eight years ago and remarked that the patient looked eight years *younger* now than he did then. The boy had grown useless, and threatened to pass into complete imbecility. He thought that the extreme youthful appearance showed the importance of the thyroid in the human economy.

### DISCUSSION OF PAPERS.

**Doctor Maass** read a paper entitled "Report of a Case of Operation for Goitre." (See The Physician and Surgeon for November, 1894.)

**Doctor Shurly** said he had treated several cases of **Graves**' disease by **Peterson**'s method with very satisfactory results. If this prove to be effective the physician would hesitate to turn such cases over to the surgeon. He reported a case of death from injury to the inferior laryngeal nerve by operation.

**Doctor Longyear** complimented the doctor on the completeness of his report. He was reminded of operations he had seen performed by **Doctor Billroth**, in Vienna. He spoke of the cretins he had seen in Switzerland a short time before and questioned whether their dwarfed condition was due to disease of the thyroid or not.

**Doctor Flintermann**: **Doctor Shurly**'s report calls to my mind a case that came to me a year ago, having all the symptoms of **Graves**' disease, which was restored to health by electrolysis. **Doctor Maass**' case was not one of **Graves**' disease, but one having similar symptoms. I saw the case and had some suspicion that it might turn out to be myxedema, which does not always depend upon the removal of the thyroid. Electricity is to be highly recommended. I have seen some very satisfactory results following its use. If electricity does not avail the case should be turned over to the surgeon.

The president suggested that some action be taken on the death of DOCTOR KAISER.

Moved by DOCTOR MULHERON and seconded by DOCTOR SHURLY that a committee of three be appointed to draft suitable resolutions.

DOCTORS MULHERON, SHURLY, and JAMIESON were appointed. The committee reported as follows:

DOCTOR AUGUSTUS KAISER, a member of the Detroit Medical and Library Association, was for twenty-two years a resident of this city. He was during the whole of this period an active general practitioner of medicine. He occupied, also, numerous positions of honor and trust both by appointment and through the suffrages of the people. As a physician, his characteristics were fidelity to the cause of medicine, devotion to the interests of his large clientele, uprightness in his relations to his professional brethren, and unswerving loyalty to the spirit as well as to the letter of every ethical obligation. Charitable, broad-minded, generous-hearted, of a strong personality, and withal of a genial, kindly nature, loved and honored by all whose fortune it was to know him well, his life was indeed a benefaction, and his taking off a public loss.

*Resolved*, That this association has learned with deep sorrow that death has removed DOCTOR AUGUSTUS KAISER from the sphere of earthly activity.

*Resolved*, That it hereby indorses the estimate of his qualities of head and heart as above set forth, and that the same be spread upon the records of the association.

*Resolved*, That the secretary be and is hereby instructed to transmit to the family of our deceased brother a statement of the action here taken, together with an expression of our profound sympathy with them in their bereavement.

*Resolved*, That the association do, as a body, attend the obsequies of our deceased brother, and that as a further mark of respect to his memory we do now adjourn.

LUTHER S. HARVEY, M. D., Secretary.

## STATED MEETING, NOVEMBER 19, 1894.

THE PRESIDENT, EUGENE SMITH, M. D., IN THE CHAIR.

### DISCUSSION OF PAPERS.

DOCTOR W. F. METCALF read a paper entitled "Hysterectomy Without Clamps or Ligatures." (See page 529.)

DOCTOR CARSTENS: The paper opens a really large field for discussion. The operation may occasionally be performed according to the doctor's method but in the majority of cases it is impossible. In severe inflammations the anatomical landmarks are lost. There is also the danger of hemorrhage to contend with. One is liable to have an immense amount of bleeding in cutting through the mucous membrane around the cervix. As regards removing the appendages per vaginam, this can be done and I have often adopted this method. In perhaps one or two per cent. of the cases the result of abdominal section is not satisfactory but the remaining troubles can be cured by local treatment. It is sometimes necessary to remove the uterus with the appendages but this is not often indicated. When it comes to the consideration of the removal of the uterus with the appendages by the vagina, I consider it a very difficult operation. Adhesions are very apt to complicate the operation. It is often almost impossible to break up the adhesions without tearing them and producing internal hemorrhage. When the uterus is movable and there is no disease of the appendages it is a good plan to remove it by the vaginal method. I would agree with the doctor in that he does not advocate this method for all cases. Sometimes you may be able to operate without clamps and ligatures but not always. I do not think that much trouble results from animal ligatures properly applied.

DOCTOR LONGYEAR: I have been interested in the doctor's paper and have been somewhat disappointed. I was in hopes he would report cases in which he had operated for cancer by this method. Most of my experience with this method has been in operating for cancer. I can conceive how one may operate by this method where the uterus has no disease seriously altering its structure. It is seldom necessary to remove the uterus. After removing the appendages the blood supply is cut off and the uterus atrophies. In many cases we meet with adhesions that cannot be broken up without having everything in sight. In the TRENDELENBERG position you have everything before your eye. The method I most favor is to first tie the uterine arteries with kangaroo tendon ligature. I put on the clamp if necessary.

DOCTOR METCALF: I brought this subject up to get an expression from the members. I would like to ask DOCTOR CARSTENS what percentage of cases make satisfactory recovery when operated on by the ordinary method.

DOCTOR CARSTENS: Most of them do. It depends upon the case upon which you operate. It is sometimes necessary to leave a part of the tissue, and menstruation continues. The parts become congested every month and the results are not immediately satisfactory.

DOCTOR METCALF: As I have said, this method is not applicable where the uterus is bound high up. It is a question how long it may be before the uterus atrophies after the removal of the appendages. Where nervous symptoms are present, especially where there is spinal irritation, the uterus should be removed.

## EXHIBITION OF SPECIMENS.

DOCTOR LONGYEAR presented a pus tube with ovary attached, which he said was characteristic of that form in which the tube has become adherent to the ovary and pus has broken through into the ovary. The ovary was buried in very tough adhesions. The doctor also exhibited a specimen of elephantiasis arabum from the right labium majus. The temperature was 104.5° at the time of operation. In a few hours the temperature became normal and has remained so since.

DOCOTOR SARGENT exhibited a microscopical section of the same and described its minute pathology.

DOCTOR CARSTENS: The first specimen shows that the tube may become adherent to the intestine and discharge into it. The case of elephantiasis is also interesting. I remember having had such a case twenty-five years ago. Since that time I have seen a number of cases in consultation. I have seen some cases that were of syphilitic origin, but have seen one that certainly was not. It is stated that all cases of this kind are due to syphilis. I do not believe that such is the fact.

LUTHER S. HARVEY, M. D., Secretary.

# EDITORIAL ARTICLES.

## THE FOOTBALL CASUALTIES.

The vast number of casualties and fatalities attending the modern game of football is directing the attention of the medical profession to a serious consideration of the physical effects of the game. The past season has been especially prolific in disasters, there being a marked tendency for the game to become rougher and more dangerous as interest in it becomes more concentrated.

It is felt, nevertheless, by those who should be well-informed, that the dangers of the game have been exaggerated. There is a certain fatality attaching to all games. Even lawn tennis has its quota of sprains and bruises. The questions of most interest are first, whether the game is injurious to health, and second, whether in the excitement and turbulence of play vicious and uncontrollable ferocity is not sometimes manifested.

The training period for football is undoubtedly likely, if not regulated by judicious restriction, to result in overtaxing the heart. Sprains, dislocations, and broken bones will occasionally complicate the player's progress to expertness. For the physically competent, the game as ordinarily played probably makes no demands with which the vigorous constitution cannot comply. That in the heat and excitement of a scrimmage occasional ferocity will be manifested is to be expected in circumstances leading to the relaxation of the higher inhibitions. These infringements can only be punished and punished severely when encountered.

Perhaps the saddest cause for reflection in the game of football comes from the interest displayed in it by observers otherwise uninterested. The admissions to the recent Yale-Princeton game netted a sum of nearly $34,000. For the majority of these spectators the exhibition consisted in a more or less brutal scrimmage, the interest in which was in direct relation to its dangers. Society has constant warnings of the thin veneer in which civilization consist. Between the days when the Romans contemplated with equanimity and without repugnance the horrors of the gladiatorial games, and these latter days in which prize-fighters give death-dealing blows with gloved hands, nothing seems to separate us but the lapse of years and such ephemeral sentiment as the better counsel of the ages occasionally evokes.

## BIENNIAL REPORT OF THE EASTERN MICHIGAN ASYLUM.

The report of the Governor, giving a detailed statement of the work of the Eastern Michigan Asylum, will be found an unusually interesting document. The Medical Superintendent's report will especially attract the notice of physicians, and direct attention to the scientific uses which can be made of the material so abundantly supplied our asylums.

The statistical tables completed by Doctor Burr, the late superintendent, emphasize the fact, so often insisted upon, that as far as occupation enters into the etiology of insanity, the farm supplies by far the largest number of patients. The monotonous and unimaginative character of country life in general inspires belief in Crichton Browne's statement that insanity much more often results from deficient exercise of the imaginative and ideal factors than from excessive use of them.

A scientific classification of the causes of insanity is fast becoming a *fait accompli.* This now includes four divisions. The first group comprises those cases due to direct physical causation, and these constitute by far the largest group.

The second group is of those cases due to indirect physical and emotional causes—mental shock, business failure, domestic infelicity, and such like. These causes seem to affect women much more than men.

The third group deals with vicious habits of various kinds. Intemperance is, of course, the prime offender in this category, but cocaine and morphine contribute many victims.

The fourth group comprises the constitution and evolutional causes. These include the congenital and developmental forms of mental alienation.

With cases classified in this way statistics begin to have a meaning, and the significance of the etiological factors in the production of mental disease can be carefully established.

Doctor Burr also contributes some remarks upon "The Crank Problem." During the last biennial period nineteen patients suffering with paranoia have been admitted to treatment. The crank is one who suffers from a disease almost exclusively found among those whose brains are "burdened" by hexitary tendency. It is characterized by primary delusion, and while this delusion may be fixed in character it does not lead to dementia or deterioration of the physical basis of mind. Thus the crank is one who has developed asymmetrically. This constitutes his great danger to society. He does not manifest degeneracy beyond all dispute. The newspapers flatter his egoism, invest his ideas or discoveries with unmerited importance, and assist his notions to crystallize into fixed delusions. Thus one public man after another has been assassinated, and society indulgently suffers the vagaries and caprices of these individuals. Doctor Burr says: "The public should learn to protect itself from persons of this description. Let officials act where relatives, having no appreciation of the needs of the patient, fail to act. Let the belief in 'harmless insanity' disappear, and let the public awaken to a sense of its responsibility to care for the crank—the individual sane on all subjects but one—the delusion-tyrannized paranoic."

## EDITORIAL BREVITIES.

### THE NATIONAL BOARD OF HEALTH.

President Cleveland, in his recent message to congress says, "I am thoroughly convinced that we ought not to be longer without a National Board of Health, or Health Officer charged with no other duties than such as pertain to the protection of our country from the invasion of pestilence and disease." Just what will practically be the outcome of this conviction it is difficult to say. It will probably not be a Department of Public Health under the charge of a cabinet officer, but a Bureau of Health. The establishment of a bureau will afford a means for testing the utility of such a government department, and will probably lead to the ultimate establishment of a ministerial office.

### THE THERAPEUTICS OF COLD.

PROFESSOR PITET, of Paris, has originated a *fin de siecle* treatment for dyspepsia. By experimenting on dogs he found that when they were plunged into a bath at a low temperature they became ravenously hungry. He tried the experiment upon himself, and found that after a four minutes' immersion in a tank, in which the water was many degrees below zero, he emerged with a ravenous appetite. Ten descents into the cold tub completely cured him.

### SUGAR AS AN ANTISEPTIC.

DOCTOR ROSWELL PARK is surprised to find how little the preservative properties of sugar have been utilized by the profession. Sugar will preserve fruits successfully, and it will also prevent putrefactive changes in flesh. Dilute sugary solutions are doubtless good culture media but saprophytic and pathogenic forms of bacteria will not develop in a thick concentrated solution. Sugar is usually one of the most accessible of antiseptics, and while not so well fitted for surgical uses as many other things, in emergencies its utility may be considered. DOCTOR PARK also considers a mixture of naphthalin and sugar an agreeable antiseptic.

### THE PROBLEMS OF HEREDITY.

IN an address he delivered before the Abernethian Society, SIR JAMES PAGET recently drew attention to some of the unsolved problems of heredity. The commingling of different and possibly conflicting pathological strains, it is pointed out, is a wholly neglected field of inquiry. Why do acute cancer and acute tuberculosis never make rapid progress together? Do two diseases in any way disturb or limit each other? In regard to effect of different strains upon the offspring we practically know nothing. The subject is not an inscrutable one and investigation should certainly throw some light upon these and kindred problems. The work is eminently fitted for the cultured physician.

## MEDICAL NEWS.

### CLINICAL TEACHING ON THE COAST.

A PROJECT is on dit to erect a central building in San Francisco for the professional colleges of the University of California. A committee has been appointed to procure the necessary legislation and an appropriation of $250,000 for the structure. In the city of San Francisco the professional schools of medicine, dentistry, pharmacy, and law have over five hundred students, and it is anticipated that the new veterinary college, which is now knocking for admission to the University coterie, will swell the number to six hundred. The progressive spirit of the occidentals appreciates the fact that their metropolis affords superior facilities for clinical teaching in *all* the professions, and since this innovation has the unanimous endorsement of students, alumni, and friends of the professional colleges, a successful issue will undoubtedly ensue. A scheme like unto this was planned in Michigan several years ago, but certain individuals with selfish motives or antediluvian ideas interposed their objections, and the "powers that be" heeding inexperienced counsel, the fond hope and future joy of dear old Alma Mater was precipitated in a miscarriage.

## A NEW HOSPITAL IN DETROIT.

THE Deaconess Hospital of Detroit was dedicated recently. Open services were held for the Detroit Deaconess Hospital Sewing Society, addresses being delivered by the president, Reverend J. A. Springer, the matron, and several deaconesses. The following gentlemen comprise the officers and staff: President, Doctor Peter Klein; vice-president, Doctor E. B. Smith; secretary, Doctor J. F. McPherson; consulting surgeons, Doctors D. Maclean, A. W. Ferguson, H. O. Walker; attending surgeon, Doctor E. B. Smith; consulting physicians, Doctors P. Klein, G. A. Kirker, C. Braum; consulting occulist and aurist, Doctor G. E. Frothingham; attending oculist and aurist, Doctor L. E. Maire; consulting gynecologists, Doctors C. H. Leonard, N. W. Webber; attending gynecologist and obstetrician, Doctor J. F. McPherson; consulting neurologist, Doctor J. E. Emerson; attending neurologist, Doctor W. R. Scurr; assistant physicians, Doctors T. J. Parker, O. T. Toepel, M. McColl, A. C. Lee; board of directors, ex-officio, Doctors L. E. Maire, G. A. Kirker.

## THE DEATH OF DOCTOR SIM.

DOCTOR F. L. SIM died suddenly a short time since at Memphis, Tennessee. He was born of Scotch–Irish ancestry sixty years ago at Golconda, Illinois; received his education in Hanover College in Indiana, and in the Louisville Medical College, and located in Memphis in 1861. He became a prominent figure through tireless work during the cholera and small-pox epidemics about the time of the civil war, but achieved national fame while the yellow fever epidemics were raging in 1878–9, when, in the service of the Howard Association, his professional labors were almost unceasing, regardless of physical comfort or personal safety. It is stated that it was not uncommon for him to make sixty visits a day to those stricken with the disease. In 1882 he infused new life into *The Memphis Medical Monthly* and successfully conducted it until a short time ago, when failing sight compelled a respite from the editorial tripod. He was a member of the American and British Medical Associations, and had held the office of president of the Association of American Medical Editors.

## A NATIONAL BOARD OF HEALTH.

PRESIDENT CLEVELAND, in his recent message to Congress, discussed the question of a National Board of Health in the following terms: "I am entirely convinced that we ought not to be longer without a National Board of Health or National Health Officer charged with no other duties than such as pertain to the protection of our country from the invasion of pestilence and disease. This would involve the establishment, by such board or officer, of proper quarantine precautions or the necessary aid and counsel to local authorities on the subject, prompt advice and assistance to local boards of health, or health officers in the suppression of contagious diseases, and in cases where there are no such local boards or officers, the immediate direction by the National board or officer, o measures of suppression, constant and authentic information concerning the health of foreign countries and all parts of our own country, as related to contagious diseases, and consideration of regulations to be enforced in foreign ports to prevent the introduction of contagion into our cities and the measures which would be adopted to secure their enforcement. There seems to be at this time a decided inclination to discuss measures of protection against contagious diseases in international conference with a view of adopting means of mutual assistance. The creation of such a National health establishment would greatly aid our standing in such conferences and improve our opportunities to avail ourselves of their benefits. I earnestly recommend the inauguration of a National board of health or similar National instrumentality, believing the same to be a needed precaution against contagious disease and in the interest of the safety and health of our people."

## A HOSPITAL FOR INCURABLES.

SETON Hospital, at Spuyten Duyvil, New York, was formally opened on December 4. Sister Irene, Mother Superior of the New York Foundling Asylum, twenty years ago conceived the idea of founding an institution exclusively for persons afflicted with incurable diseases, and she began raising funds for the purpose of materializing the project. To-day, on the banks of the picturesque Hudson, a magnificent brick structure bears testimony to the indefatigable efforts of this beneficent woman. The building is four stories high, two hundred and fifty feet front, two hundred feet deep, and contains two hundred rooms. It cost three hundred and thirty thousand dollars and is entirely free from encumbrance. The hospital is named for Mother Seton, the founder of the order of the Sisters of Charity in the United States. Doctor J. West Roosevelt will be chief of the medical staff, and Sister Mary Dolores, in conjunction with a board of managers, will supervise the affairs of the institution.

## AN INCENTIVE TO COMPETITORS FOR PRIZES.

A PRIZE of two hundred dollars for the best essay on any subject within the domain of neurology is offered by the American Neurological Association. The privilege of competition is extended to physicians who are legal residents of states in North and South America. The essays must be framed in either the English or French language, typewritten, and the pages securely fastened. It is required that the production bear evidence of original research, and hackneyed papers that have been doing service for several years in different journals and meetings are debarred. Essays must be sent to the secretary of the association, Doctor Graeme M. Hammond, on or before the 10th of May, 1895, and each should be accompanied by a sealed envelope containing the name and address of the author, and bearing on the outside a motto, which shall also be inscribed upon the essay. The right to reject any and all essays is reserved.

## INSURANCE MONEY RECOVERED.

A VERDICT has been rendered in the famous Doctor Fraker insurance case. The jury decided in favor of the plaintiffs after a deliberation of twenty-one minutes. The doctor was insured in five companies, the policies aggregating $44,655, two sisters and six orphan nephews being the benefactors. He was a physician with moderat practice and a hobby for fishing. On July 10, 1893, while indulging in the diversion of angling at Excelsior Springs, Missouri, he was drowned. Efforts to recover the body were futile and the complete disappearance being so exceptional several of the insurance companies refused to honor the policies. A desperate fight in the courts ensued, the defense claiming that a conspiracy to defraud had been perpetrated; that the doctor was not dead, but had swam the river and escaped in the garb of a woman. This theory was bolstered by the introduction of testimony to prove the doctor a human prodigy capable of changing his sex every seven years, and had awaited the transitional period that the deception might be successfully practiced.

## MINOR INTELLIGENCE.

IMMORAL massage establishments are numerous in London.

THE garbage of Montreal is collected and cremated for $43,000 annually.

THE English succumb to gout in the proportion of twelve in ten thousand.

DOCTOR ARTHUR VON LUNA, of Chicago, committed suicide on November 26.

NEWARK, New Jersey is to have a new hospital for contagious and infectious diseases.

THE German Medical Society of the City of Yew York recently celebrated its thirty-fourth anniversary.

A NATIONAL Diphtheria Committee, to investigate the antitoxine treatment, will be appointed by Congress.

THE late Miss Sophia Snow, of Bath, Maine, bequeathed $5,000 to the Massachusetts General Hospital.

THE Indiana Medical College, of Indianapolis, together with valuable specimens, have been destroyed by fire.

THE word "anesthesia" was introduced to medical nomenclature by Doctor Oliver Wendell Holmes in 1846.

TULANE University, at New Orleans, now admits women on an equality with men in its pharmaceutical department.

PROFESSOR KITASATO has been presented with a gold cup by the citizens of Nagasaki for discovering the bacillus of the plague.

DOCTOR W. B. ROGERS, of Memphis, has been appointed dean of the Memphis Hospital Medical College, vice Doctor F. L. Sim, deceased.

THE Detroit Polyclinic and Free Dispensary is the name of a charitable institution recently established at 213 Gratiot avenue, Detroit.

DOCTOR JAMES R. COOK, of Boston, has been blind from infancy, but this misfortune has not prevented a successful career in medicine.

THE Illinois State Board of Health has appointed a committee to urge legislation directing the establishment of a state vaccine farm.

DURING October the mortality of San Francisco was 518. Consumption lead in the category of diseases, causing ninety victims to succumb.

THE next meeting of the Southern Surgical and Gynecological Association will be held in Washington, District of Columbia, in November, 1895.

DOCTOR D. E. WELSH, of Grand Rapids, has been appointed a member of the executive committee of the National Association of Railway Surgeons.

IN New York the coroner, as a constitutional officer, has been abolished, and henceforth physicians will undoubtedly receive appointment to this office.

THE Woman's Medical Club of Chicago has inaugurated the practice of dining and wining. Its first banquet was held Wednesday evening, November 14.

DARTMOUTH Medical College commencement exercises were held on November 20. Twenty-seven candidates received the degree of Doctor of Medicine.

An express company in Texas has been held liable for delay in transmitting medicine ordered by a physician and delivered to the company by the druggist.

SEVENTY tons daily is the estimated weight of the refuse of San Francisco. This amount includes ashes, sweepings, and stable manure, but excludes night soil.

THE Northern Tri-State Medical Association convened in regular semi-annual session at Hillsdale on Tuesday, December 11, under the presidency of Doctor Frank M. Gier.

PHYSICIANS who have been practicing in Detroit for twenty-five years or more have inaugurated a movement to found an organization of a historical and social character.

CANON MACCOLL is preparing the life of Sir Andrew Clark. W. H. Allchin will assist in the work, and Mr. Gladstone has been selected to write the introduction.

THE graduating exercises of the medical department of the University of California were held on November 20, a class of thirty-two receiving the degree of Doctor of Medicine.

THE late Doctor William Goodell bequeathed fifty thousand dollars to the medical department of the University of Pennsylvania, and ten thousand dollars to the College of Physicians.

IN compliance with the request of the Board of Regents the entire homeopathic faculty of the University of Michigan have tendered their resignations, to take effect when the board desired.

THE Middle Tennessee Medical Association held its first regular meeting at Nashville, on November 20 and 21, under the presidency of Doctor J. B. Cowan, of Tullahoma. The meeting was largely attended.

DOCTOR M. C. TERRY, of Utica, has been appointed Surgeon General of the New York State National Guard. He is a homeopath and a graduate of the Homeopathic Hospital College, of Cleveland, Ohio, class of 1872.

THE Massachusetts General Hospital has been enriched one hundred thousand dollars by the will of the late Thomas E. Proctor. The bequest is to be held in trust until four hundred thousand dollars accrue from principal and interest.

THE Library of the Surgeon General's office contains one hundred and fourteen thousand five hundred and sixty-seven bound volumes and one hundred and eighty-three thousand seven hundred and seventy-eight monographs and theses on medical subjects.

A VETERINARY COLLEGE has been established in San Francisco, and its board of trustees have applied for affiliation with the University of California. The new school will begin operations in January, 1895. It is thought the character of the board will insure admission of the college to the University fold.

THE Health Commissioner of Denver has established a bacteriological laboratory for thorough research in contagious and infectious diseases. Tubes are furnished physicians for collecting pathological deposits, sputa, et cetera, and submitting for minute examination.

AT a late meeting of the Board of Regents of the University of Michigan petitions were received asking for a new chemical laboratory to cost forty thousand dollars; a new hospital to cost sixty thousand dollars; and a new anatomical laboratory to cost twenty-five thousand dollars.

NEW YORK registered a mortality of ten thousand nine hundred for the quarter ending September 30, a decrease of four hundred and eighteen from the corresponding period of last year. In the quarter for this year an increase of one hundred and ninety-one births and eight hundred and fifty-four marriages is also noted.

MR. GEORGE S. DAVIS, the publisher of *The Index Medicus*, complains of the lack of support by the profession of his publication. Mr. Davis has continued to publish *The Index* at considerable cost to himself, and it is clearly the duty of the profession to support, by their patronage, a publication, so intimately associated with their interests.

THE establishment of a bacteriological institute in connection with the Detroit health department is being considered. The Practitioners' Club discussed the project at a recent meeting and expressed strong sentiment favorable thereto. Other members of the profession are averse to creating additional offices under the present politico-medical régime.

DOCTOR James M. Cook, of Muskegon, died of pleuro-pneumonia at his home on the 21st instant, aged fifty-four years. He was a graduate of Rush Medical College, class of 1868, and had been a resident of Muskegon twenty-six years. On two occasions the Michigan State Medical Society honored him by election to the vice-presidency, first in 1884 and again in 1893.

THE Cleveland Medical Library Association has an endowment fund of $8,000, with prospects of augmenting this amount $500 per year by membership fees. This sum has accrued through the efforts of a joint committee from the several medical societies of that city, and the excellent result achieved should act as an incentive to the Detroit medical fraternities to inaugurate similar movement.

THE New Hampshire Hospital Association convened in annual session at Concord, on November 15. The object of this society is the consideration of questions pertaining to the management and requirements of hospitals. "The Relation of the Citizens to the Hospitals" was elucidated in a paper by Doctor C. F. Towne, and a general discussion resulted in making clear the needs of these institutions.

AT a recent meeting of the Grand Rapids Academy of Medicine The Physician and Surgeon was unanimouly adopted the official organ of that body. Beginning with the January number the papers and discussions presented at the meetings of this society will henceforth be published in this journal. The Academy is composed of the representative physicians of the Valley City, and their opinions on topics medical, will undoubtedly be found profitable reading.

The Washtenaw County Medical Society held a meeting at the Pathological Laboratory of the University of Michigan, on Wednesday evening, December 19, the president, Heneage Gibbes, M. D., in the chair. Papers were read by Doctors E. Batwell, of Ypsilanti, and C. G. Darling, of Ann Arbor. A microscopical demonstration was given by Professor D. C. Worcester, and important cases were reported.

At the meeting of the New York State Association of Military Surgeons, held in New York City on November 15, the following were elected officers: President, Doctor R. S. Harnden, of Waverly; first vice-president, Doctor C. S. Parkhill, of Hornellsville; second vice-president, Doctor J. A. Van Duyn, of Syracuse; secretary, Doctor C. E. Herrick, of Troy; treasurer, Doctor J. F. Valentine, of Brooklyn.

The secretary of the State Board of Health of California recommends that boards of supervisors employ an attorney to prosecute violators of the law requiring registration of births, marriages, and deaths. Failure to comply with this edict is punishable by a fine of fifty dollars, and the health official suggests that one-half the amount be given as a fee for legal service. He states that the law is shamefully ignored by the authorities and the physicians.

The profession in Michigan are awakening to a sense of duty. Meetings were held recently in Detroit and Grand Rapids to discuss measures calculated to procure a law regulating the practice of medicine. A suitable bill will be prepared and a mass meeting of physicians called to consider its adoption. It is earnestly to be hoped that the legislature will remove from Michigan the stigma of being the dumping ground for quacks, by establishing a board of medical examiners.

The Lyman prize of the Boston City Hospital for next year is one hundred dollars, and it will be awarded to the author of the best essay on any subject pertaining to medicine or surgery. Competition is restricted to graduates of the Boston City Hospital of not more than three years' standing. Essay must be sent to the Secretary of the City Hospital Club before January 20, 1895. They must be typewritten, and accompanied by a sealed envelope containing the name of the writer.

New York City will have a new woman's hospital. The authorities of the old institution at Park avenue and Forty-ninth street recently selected the block between Ninety-second and Ninety-third streets in Central Park West, the plot extending two hundred and fifty-nine feet in Ninety-second street and two hundred and fifty in Ninety-third street, a parcel of twenty-five feet in the latter street being excepted. The cost of this site is $331,000, and it has nearly all been secured by deed or contract.

Complimentary Dinner to Doctor Donald Maclean.—Doctor Donald Maclean was made the recipient of a flattering honor at the Russell House, December 4, 1894. His professional brethren invited him to a banquet given in honor of his election to the presidency of the American Medical Association. About one hundred gentlemen participated in the feast. After the banquet speeches were made by representative professional men. The affair was an extremely successful one, gratifying alike to those who participated in it and the distinguished guest in whose honor it was given.

The German Vaccine Institute at Weimar, is arranging to commemorate Jenner's discovery of vaccination by a celebration to be held in 1896. A feature of the occasion will be an exhibition of old and new vaccine instruments; of apparatus for the preservation of lymph, et cetera; of original manuscripts on small-pox and vaccination; on the inoculation of sheep-pox and cattle-plague in pre-Jennerian days; of squibs on vaccination; of medals, portraits, and autographs of prominent inoculators, vaccinators, and antivivisectionists, et cetera.

The American Academy of Railway Surgeons was organized in Chicago, on November 9 and 10. This body is an offshoot of the National Association of Railway Surgeons, and is said to be composed exclusively of the aristocratic members of the railway specialty. The following were elected officers for the ensuing year: President, Doctor C. K. Cole, of Helena, Montana; vice-presidents, Doctors C. M. Daniels, of Buffalo, New York, W. H. Elliott, of Savannah, Georgia; secretary, Doctor Webb J. Kelly, of Galion, Ohio; treasurer, Doctor C. B. Kibley, of Corry, Pennsylvania. The next meeting will occur on September 12, 13 and 14, 1895, in Chicago.

The bronze tablet erected to the memory of the discoverer of anesthesia, Doctor Horace Wells, of Hartford, Connecticut, was unveiled without ceremony on December 11, in consequence of the inclement weather. The tablet commemorates the fiftieth anniversary of the discovery of nitrous oxide gas as an anesthetic. It bears a medallion portrait of Doctor Wells, and the following inscription: "To the memory of Horace Wells, the dentist, who, upon this spot, December 11, 1844, submitted to a surgical operation, discovered, demonstrated, and proclaimed the blessings of anesthesia." The fund for this memorial was raised by two hundred and fifty dentists in the United States.

The *Weekly Medical Review*, of Saint Louis, under date of November 3, last, published an article entitled "Some of the Uses and Abuses of the Nitrites." This paper appeared originally in The Physician and Surgeon for November, 1893. Later it was served as original matter to the profession of the Dominion through *The Canada Lancet*, no credit having been given to our publication. Later still it was reproduced in *The Therapeutic Gazette* and credited to our Canadian contemporary. Having done service in the monthlies it is now being called into requisition by the weeklies (which, by the way, are supposed to be mirrors of latest research), our western colaborer crediting the article to the Philadelphia journal.

The Wayne County Medical Society convened in special session at the Hotel Cadillac, Detroit, on December 17, under the presidency of Doctor E. B. Smith. The Detroit Medical and Library Association and the Windsor (Ontario) Medical Society were guests of the occasion. Doctor A. H. Ferguson, Professor of Surgery in the Chicago Post-Graduate School of Medicine, read a paper on "The Radical Cure of Hernia," which was elucidated by numerous charts. Rabbi Louis Grossmann expatiated on "Biblical Medicine," and characterized Moses the pioneer health officer. Passages of scripture were cited to prove that this ancient sanitarian had an intuitive knowledge of the germ theory and adopted measures to prevent the transmission of disease by this agency.

# RECENT PUBLICATIONS.

## REVIEWS.

### TEXT-BOOK OF HYGIENE.*

THIS is the day of the sanitarian, and the text-books of hygiene are more in demand than formerly. The favorable opinion we expressed in reviewing Doctor Rohé's text-book on its first appearance has been justified by the demand for a second edition.

The recent changes in quarantine relations have necessitated the rewriting of much that dealt with the subject. The whole field of preventive medicine is carefully and completely traversed, and the manual will be a needed one to all who teach or practice sanitary science.

*A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Stand-point. By George H. Rohé, M. D., Professor of Therapeutics, Hygiene, and Mental Diseases in the College of Physicians and Surgeons, Baltimore; Superintendent of the Maryland Hospital for the Insane; Member of the American Public Health Association; Foreign Associate of the Société Française d'Hygiène, et cetera. Third edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. Royal octavo, 553 pages. Cloth, $3.00 net. Philadelphia: The F. A. Davis Company, Publishers, 1914 and 1916 Cherry street.

### A MANUAL OF MODERN SURGERY.*

AN excellent manual of surgery, modern in tone and clinical in spirit, is presented in Doctor DaCosta's recent contribution to surgical literature. It is a medium-sized work, which "seeks to stand between the complete but cumbrous text-book and the incomplete but concentrated compend."

The author has devoted considerable space to the necessary elucidation of the bacteriological principles underlying surgery. His descriptions of surgical diseases are exact and realistic, and the application of surgical methods is fully exemplified. The work has been carefully published. A large number of original illustrations elucidate the text, and thirteen full page plates in colors illustrate bandaging, bacteriology, and kindred subjects.

There can be no doubt that Doctor DaCosta's manual will quickly achieve a popularity to which its merits clearly entitle it.

*By John Chalmers DaCosta, M. D., Demonstrator of Surgery, Jefferson Medical College, Philadelphia. One hundred and eighty-eight illustrations and thirteen full page plates in colors. Price, $2.50. W. B. Saunders, Philadelphia.

### THE PHYSICIANS' VISITING LIST.*

THE new year brings with it the need of a new visiting list. Blakiston's celebrated little book, which has for forty-four years served the profession faithfully, will doubtless not fail to satisfy all its old friends and to gain new admirers.

*Lindsay & Blakiston's for 1895. P. Blakiston, Son & Company, Philadelphia.

## A MANUAL OF THE PRACTICE OF MEDICINE.*

THIS is one of the best examples of a *multum in parvo* manual. The student of the present day has no time at his disposal for the perusal of elaborate treatises and seizes with avidity anything that will reduce the labors of reading the essentials of science with directness. Doctor Stevens' manual is constructed on the principles of imparting the outlined and ascertained facts, in each instance leaving its clinical experience to analyze and extend these. It is an excellent bedside manual and will be popular with the students.

*By A. A. Stevens, A. M., M. D., Instructor of Physical Diagnosis in the University of Pennsylvania, and Demonstrator of Pathology in the Woman's Medical College of Philadelphia. Third edition. Price, cloth, $2.50. W. B. Saunders, Philadelphia.

## PRACTICAL URINALYSIS AND URINARY DIAGNOSIS.*

THE subject of urinalysis receives careful treatment in this volume. The scheme of the work is of an embracing character. In dealing with each constituent of normal urine, the following data are considered: its chemical nature and composition; its source in the economy; the significance of its increase or decrease in the urine, and the most approved methods for its detection. A similar method prevails in the consideration of each morbid element. The second part of the work deals with urinary diagnosis and contains a concise description of the special features of the urine that indicate the existence of active pathological processes.

An appendex deals with the subject of urinary examinations for life insurance, in which the author gives the reader the benefit of his large experience.

The work is very complete in every department and will prove an exceedingly valuable addition to the student's and practitioner's resources.

*A Manual for the Use of Physicians, Surgeons, and Students. By Charles W. Purdy, M. D., Queen's University; Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Urology and Urinary Diagnosis at the Chicago Post-Graduate Medical School; Author of "Bright's Disease and Allied Affections of the Kidneys;" also of "Diabetes—Its Causes, Symptoms, and Treatment." With numerous illustrations, including photo-engravings and colored plates. One crown-octavo volume, 360 pages, in extra cloth, $2.50 net. Philadelphia: The F. A. Davis Company, Publishers, 1914 and 1916 Cherry street.

# MEDICAL PROGRESS.

## MEDICINE.

### ELEVEN VITAL POINTS CONCERNING PHTHISIS—WHAT CASES TO SEND TO COLORADO.

MY views on most of these questions are positive, and have been already expressed in several articles published in Eastern journals. They may, however be more succinctly stated as follows:

(1) The cases unfavorably affected by high altitudes are only those in

which the extent of lung involvment is so great that the available respiratory area cannot secure a sufficient supply of oxygen from our rare atmosphere.

(2) Fibroid phthisis and bronchial irritation do not contraindicate residence in the Rocky Mountain region. Embarrassed heart action when dependent on conditions specified in answer to (1) is a contraindication.

(3) In my experience high altitude does not cause nervous disturbance nor physical depression in such a manner as to favor the development of more active pulmonary trouble. Headaches and neuralgias due to congestive troubles are occasionally increased in severity, but the beneficial influence of the climate upon the individual's general health will, in ninety-nine per cent. of cases, vastly overbalance this.

(4)—a. The tendency to fever is not increased by our mountain climate, and

—b. Except in extremely high altitudes, say from 10,000 to 15,000 feet, the liability of hemorrhage is not greater. When cases have reached the stage of "arrest," after some months residence in Colorado, I do not permit nor advise the patient to return to the East to reside.

(5) Permanent residence in lower and more moist regions cannot be resumed in less than five years. Even a visit East of a few weeks, after several years' residence in Colorado, may cause a fatal renewal of the disease in some instances. I have personal knowledge of a number of such cases.

(6)—a. Practically, a permanent residence in the West is necessary to the maintenance of a cure.

—b. In a large majority of cases that have received any benefit, a permanent cure is attained by permanent residence.

(7) When cases have reached the stage of "arrest" in this climate and have returned to the East, and have become again infected, they do not make as good a recovery (perhaps do not improve at all) on returning to Colorado the second time.

(8) The number of months' residence in this climate necessary to effect the change from "active" trouble to the condition of "arrest" might be placed at a few months in the most favorable cases — an indefinite period in others. Altogether dependent upon the characteristics of the individual case.

(9) Hemorrhagic cases receive most benefit from climate. Also those in which the lesion is definitely limited to the apices of the lungs, and those with small cavities that drain easily and completely.

(10) The practice among physicians in the East of advising pulmonary patients, who may have some heart trouble, against coming to Colorado is based upon ignorance of the real conditions existing here and upon the fallacious statements of text-book writers who have never visited the localities about which they presume to write.

(11) Only the functional cardiac trouble dependent upon extensive pulmonary involvement is aggravated at this altitude. Other persons having cardiac disease live as comfortably and as long in Colorado as in any other region. The percentage of deaths in Denver due to diseases of the heart and to that closely allied condition, Bright's disease, is shown by the records of the Health Department to be very much smaller than the percentage due to those causes in any other city in the United States, having a population exceeding

100,000. The same statement is true in regard to pneumonia and bronchitis. Irresponsible writers of text-books have imagined that these diseases ought to be more prevalent and fatal here than elsewhere; from belief to assertion has been but a short step and their erroneous statements were disseminated and have been largely accepted as correct simply because they have not been contradicted.—William P. Munn, M. D., in *The Colorado Climatologist.*

## SURGERY.

### TUBERCULAR JOINT DISEASE.

THE usually accepted explanation of atrophy is that it is due to a reflex action through the trophic centers in the anterior horns of the spinal cord. But why does the atrophy affect certain muscles earlier and more than others? Hilton has pointed out that the same nerves which supply any joint supply also the muscles acting on that joint. In this way he explains the unconscious fixation of a diseased joint, which always occurs, and to which I have already referred. In this same manner he explains the flexion that usually takes place (knee and elbow) by the greater power of the flexors over the extensors. But he does not explain the atrophy. Ferrier does this by telling us that extensor muscles are always earlier and more quickly atrophied than the flexors, because they are the weaker. "The vitality of the extensor centers and nerves is the first to become exhausted by any condition tending to lower the vitality of the nerve centers and nerves in general."

Charcot has shown that muscular atrophy from disease of a joint is not the same as that from want of use, the latter being a fatty degeneration, which the former is not. He was of the opinion that nerve irritation alone is capable of determining rapid and early atrophy of muscles, and that the diseased joint irritation does so markedly, because its irritation is continuous. He points out also that atrophy started by joint disease is apt to persist and to cause general atrophy of the limb (to which I have already referred). In *The British Medical Journal* there are references to investigations made by German and French observers, who found a simple degeneration in the atrophied muscles connected with joint disease. The muscles "were obviously atrophied and of a paler color than those on the side, and they had lost their firmness and elasticity." The microscope showed "no trace of degeneration," but the "fibers were considerably smaller than they should be." This, it appears to me, points to what I have already suggested in my paper on "Bier's Method of Treating Tubercular Joints by Conjestion," namely, that the reflex action, acting through the trophic centers in the anterior horns of the cord, causes a contraction of the arteries. It seems natural to suppose that diminution in the size and power of a muscle should be due to a diminished blood supply; and if the object, so to speak, of a reflex action is to cause atrophy of a muscle, surely the quickest and surest way would be to shut off the blood supply. Then one must remember that though the atrophy begins in certain muscles, it ultimately extends to the whole limb and tends to persist.

Muscular atrophy cannot be due to muscular spasm in the cases we are considering, because the muscles affected with spasm are not those most atrophied;

for example, in the case of the knee the hamstrings are most contracted and the quadriceps is most atrophied. Again, this theory will not explain the atrophy of a whole limb, muscles, bone and all.

Another explanation has been offered of the muscular atrophy, in tubercular joint disease; for instance, of the deltoid in shoulder and the quadriceps extensor in knee affections, namely, that the tubercle bacilli enter the muscular substance from the subjacent joint and cause a low form of inflammatory process which produces the atrophy. No proof of this has, however, been adduced; indeed, as we have already seen, the atrophy has been proved to be a simple one, unconnected with any degenerative or other change in the substance of the muscles themselves.

At the same time one must admit that it is very likely that the muscular substance is tubercular in some way, for it has been demonstrated that muscle from tubercular animals, although it may seem perfectly sound and good, is capable of affecting guinea pigs with tuberculosis.

In what way is the apparently healthy muscle infective? Does it contain spores? Are bacilli derived from the blood and lymph vessels? How do the lower animals get their tuberculosis? Why has muscle tubercle not been observed in man? These are questions that suggest themselves, but cannot of course be discussed in this paper.—Mr. A. G. Miller, in *The Edinburgh Medical Journal.*

## GYNECOLOGY.

### A NEW METHOD OF REDUCING BACKWARD DISPLACEMENTS OF THE UTERUS.

Reporting the communication of Rapin at the Rome Congress, Batnaud says that many cases of backward displacement of the uterus, in which this organ is supposed to be adherent to the surrounding viscera, are, as a matter of fact, simply held in Douglas' pouch by a combination of atmospheric pressure, the intestines, and the two layers of the sacro-uterine ligament, which imprison it laterally. To dislodge the uterus from this incarcerated position, Rapin has proposed this procedure:

The first two times insert the sound and rotate in the usual way. If the position remains unchanged, the third time, instead of lowering the handle of the sound, press upon the sound from behind forward and from below upward, moving the uterus as with a lever; by so doing one presses upon the entire anterior face of the uterine cavity, not only with the point, but with the entire part of the sound within the uterus; then we raise and draw the uterus forward and upward without endeavoring at first to replace it.

By this maneuvre we dislodge the fundus from the rectum, opening the cul-de-sac, and the intestines, pressed down by the atmospheric pressure, fall into the place formerly occupied by the fundus, thus aiding in the forward movement of the organ.

At the moment the intestines assume their new position one feels that the resistance is overcome, and if now the handle of the sound is lowered, the replacement is completed without the aid of force or the provoking of pain.

The sound is withdrawn, while, with the index finger still in the vagina, the neck of the uterus is pushed backward and the fundus comes forward into position. When there is resistance to the upward and forward traction, instead of the continuous pressure, a to-and-fro or a sawing movement, causing the uterus to advance in a zigzag manner, is often of advantage.

In all these manipulations the sound is governed by one hand, while the index finger of the other is placed within the vagina, palpating the cul-de-sac and controlling the sound within the uterus.

To maintain the uterus in position a pessary is used that fits partly in the vagina and partly within the uterine cavity.—Jules Batnaud, in *Revue Médico-Chirurgicale des Maladies des Femmes.—The Brooklyn Medical Journal.*

# THERAPEUTICS.

## DOES TUBERCULIN POSSESS ANY DIAGNOSTIC VALUE IN TUBERCULOSIS?—A PROTEST IN BEHALF OF THE COW.

As the use of tuberculin for diagnostic purposes in the human subject has been nearly adandoned, I write this paper in behalf of the dairy cow.

It seems to be the fad now with some sanitarians to inject tuberculin promiscuously in a lot of dairy cows. If any of them have a rise of temperature as the result, the inference is that they are affected with tubercular disease, and must be destroyed. It will be recollected by all who are familiar with the history of tuberculin that it was, for a while, claimed as a certain test for tuberculosis in the human subject; but like many other late fads in medicine, it was soon proved to be worthless. The theory was, if on injecting a centigram, or even a milligram, when the patient was affected with tuberculosis, reaction with rise of temperature would result; but no reaction would take place in any other disease or in a state of health. It was claimed that this reaction was due to the affinity existing between the lymph and the tubercular disease.

It has been proved by very competent experimenters that there is no certainty in the reactive effects resulting from the injection of the lymph. That it has failed, in this respect, in cases of known tuberculosis, and per contra, in cases of other diseases and in health, has produced reactive fever.

If the statement were true, that as small aquantity of the lymph as a milligram, or even a centigram, injected into the arm, could differentiate between tuberculosis and any other disease, or a state of health, so as to produce reaction with abnormal temperature, we should be greatly puzzled to account for the mode of its action, and perhaps forced to say it was the result of the elective affinity existing between the lymph and tubercular disease. But would this view of the subject satisfy the inquiring mind? We think not.

Let us for a moment inquire into the nature of the lymph, as to its comp sition. It is obtained by injecting a culture of the tubercule bacilli into guinea pig, and from the abscess resulting, matter is taken, and fifty per cen of glycerine added. This mixture is sterilized by the application of heat. O course the active principle of this fluid consists in what is termed toxine o tox albumin of the microbe of tuberculosis, as the bacilli are destroyed by th sterilizing process. Then, as a dose of a centigram we would administer of the active principle of the lymph about one-tenth of a minim or drop. Now admit that such an infinitesimal quantity of the toxine of the tubercular bacilli could produce reactive fever when injected in a case of tuberculosis, why could or would not the toxine already in the system produce the same result? We could not, with propriety, say the toxine produced in the guinea pig is more active or poisonous than that found in the human body.

Now, as to its test for tuberculosis in the cow. If the animal was injected with a decigram of the toxine, equivalent to one minim, and ten times larger than the maximum dose recommended for man, according to the theory, the cow, if diseased with tuberculosis should have reactive fever, and of course if healthy, no such reaction results. It would seem to be more rational to judge of the health of the cow by her general appearance and physical condition, than to use such a nonsensical test. If the cow is in good flesh, active, with good appetite, and shows no external signs of disease, the presumption is that she is in good health. If any cow is so diseased with tuberculosis as to secrete milk containing the tubercular bacilli, unless the udder only is invaded, her general appearance would indicate disease, and if the udder simply is affected, it would be palpable to ordinary inspection. Then again, if the milk contains the microbe it would afford a more satisfactory test by its examination. I think sanitation is being carried too far when a dairy or part of a dairy of cows is destroyed on the hypothetical test of such a fad as the tubercular lymph or tuberculin has proved to be.—T. B. Greenley, M. D., in *The Cincinnati Medical Journal.*

## A NEW AND RELIABLE ANTHELMINTIC.

DOCTOR MIROWICZ first called public attention to naphthaline, as a reliable anthelmintic and tenicide, in 1891. Naphthaline is a coal tar derivative, crystalline in form, insoluble in water, and but slightly soluble in alcohol. It is soluble in alkaline digestive fluids, but is not absorbed through the intestinal walls to any appreciable extent. Four hours after the exhibition of a maximum dose no evidence of its presence could be detected by any abnormal products in the urine or sweat. It is absolutely destructive to all forms of entozoa, is an unchangeable intestinal antiseptic, is a neutralizer of ptomaines rendering them innocuous, is an antiferment. As a tenicide one dose is usually sufficient, and it is unnecessary to examine for the head—it always comes away. There is no uncertainty about the dose, as with filix mas; there is no permanent injury to the gastric glands, as with tannate of pelletierine; there is no terrible cephalalgia, as with ammonium embelate; there is no danges, as with chloroform.

Naphthaline, however, has its drawbacks. It is a very disagreeable drug to administer. Not only is it quite unpleasant to the taste and smell, but it is followed by offensive eructations.

As to technique, it should be given in capsules, twenty grains for one dose, and in the morning when the stomach is empty.

The three previous meals should contain an excess of salty and vegetable acid foods. Four hours after taking the capsules an eight grain dose of calomel with four grains of bicarbonate of soda should be given, followed in another four hours by two tablespoonfuls of castor oil. This is for an adult of average size. The dose for children should be about one-half as much, given only when extreme debility does not exist. Naphthaline can be had from any first-class drug house, and should cost about twenty cents per ounce. The chemically pure crystals only should be used.—A. D. Hard, M. D., in *The Cincinnati Medical Journal.*

## MEDICAL MELANGE.

### THE PHYSICAL STRAIN INVOLVED IN HIGH SPEED.

THE exaction that modern railroad speed makes on the physical stamina of railroad men is demonstrated in the fact that seven engineers are required to take the Chicago flyer out and seven back, says *The Boston Transcript.* The running time between New York and Chicago is twenty-four hours, and the average speed is forty-eight miles an hour. Each engineer and engine runs three hours. Machine and man return with a slow train to their starting-point to relieve the strain on both. Then the engineer is given forty hours' rest before he goes on the flyer again. This rest is absolute, no work of any kind being required of the engineer. Though the average speed is forty-eight miles an hour, the locomotive must at some points be driven at sixty or more. The physical strain on the men in the cab at those bursts of speed is something terrible. The engineer has fifty things to look out for, and is being shaken and swayed all the time. The fireman is constantly feeding the insatiate furnace. On the run of the Empire State express three tons of coal are shoveled from the tender into the furnace between New York and Albany. It is not wonderful that the engineers of this train are given alternate days for rest and recuperation. Fast travel not only wears out rails and machines, but human creatures' lives.—*The Scientific American.*

### A TRUE STORY.

A CORRESPONDENT sends the following, for the truth of which he vouches: A young doctor who began his practice in Texas, west of Houston, was called to a confinement case in which he, being green and nervous, naturally had some trouble, the patient seeming unable to make the supreme effort for final expulsion. The only other occupant of the wretched quarters was an old crone in a sunbonnet who was silently but steadily rocking herself near the foot of the bed. Finally. the old woman croaked out, "Doc, I wouldn't bother any longer with that woman, I believe I'd quill her and have done with it." The medical man not knowing what "quilling" meant answered that he did not quite see the necessity for that yet. The old woman repeated this suggestion several times until finally the nervous, exasperated man turned angrily on her and said, "Madam, I'll be d— if I will do it. If you want to quill her you can do so, but I won't." The crone took from the wall a turkey-wing and drawing a feather from it proceeded to fashion something like a long quill toothpick and filling this with snuff from her own private stock leaned over the patient and as the next pain came blew the snuff into the woman's nostrils. Quick as a flash the woman responded with a giant sneeze and the child was born with the sneeze. "Thar," said the old woman radiantly, "I knowed mighty well that thar bust would make her break her hold." And it did, to the great instruction of the attending physician.—*The Medical Record.*

# PRACTICE.

## THE TREATMENT OF DELIRIUM TREMENS.

*The New York Medical Journal* of July 21, 1894, contains an instructive article by Doctor Russell Bellamy, of Colorado Springs, in which he details a plan of treating delirium tremens, adopted by him with unusual success during his term of service in the alcoholic wards of Bellevue Hospital, New York. An extreme hypnotic and feeding plan was adopted, but in the selection of the hypnotic remedy some difficulty was experienced in deciding between the dangerous Magendie solution, the rapid but uncertain hyoscine hydrobromate, the powerful depressant chloral and the almost inert bromides or their combinations. It was at that time that the author's attention was called to trional, which he employed exclusively in twenty-five cases with extremely satisfactory results. The mode of treatment was as follows:

Immediately on the admission of a patient a calomel purge and twenty grains of trional mixed in water, with ten minims of tincture of capsicum to hasten absorption were administered, and if the condition would warrant, a very hot bath was given, its temperature being gradually lowered. The patient was then placed in bed in a well-ventilated room and restrained with sheets and shackles. If the delirium showed no signs of abatement in thirty minutes, ten grains of trional were given. If this had no effect in an hour twenty grains were added. In nearly every instance in the cases reported, sleep followed the administration of fifty grains and the pulse and respiration were stimulated. The drug can be administered either as a mixture with water, in capsules, dry on the tongue, or by rectum. In several cases, on account of the feeble and weak condition of the pulse digitalis—preferably the fluid extract—was administered. Beyond trional in a limited number of cases, no medication was given except a routine tonic consisting of strychnine with a mixture of the vegetable bitters and ammoniated tincture of valerian. In no case was a marked depressing effect from trional observed. Possibly on account of the ethylic and methylic elements in its composition, the drug acted as a cardiac stimulant rather than as was supposed by many a depressant. As, according to Doctor Bellamy's experience a moderately high temperature is almost a constant accompaniment of severe delirium tremens, it is important to note that in no case did the temperature rise above 102°, consequently the drug certainly possesses antipyretic properties. In all cases forced feeding, in small quantities often repeated was followed, the diet consisting of milk, eggs, and soups.

## REMARKABLE RESULTS IN THE TREATMENT OF EPILEPSY.

About a year ago I commmenced using your hydrocyanate of iron in epilepsy and have had such good results from its use that I feel like adding something to the literature on the subject of its use in this connection. I have had marked improvement in every case that I have treated with it and complete recovery in two cases.

*Case I.*—Mr. M., aged forty-three years, family history good. At the age of twenty the patient had left forearm crushed and had it amputated at the juncture of the lower with the middle third; after the wound commenced to heal patient commenced to have epileptic attacks which increased in severity until he would have on an average one a week and some days would have three or four seizures.

I saw the patient in January, 1893, and learned that he had been taking bromides for a long time, with little or no result. Upon examination of the stump I found it extremely tender upon deep pressure, due to the presence of a neuroma at the end of the ulna and median nerves. I amputated the limb higher up giving the patient a good stump, and commenced giving the bromide of potassium in twenty grain doses four times daily to break up the epileptic habit that we find in cases of traumatic epilepsy; but the attacks continued to recur. I gave the bromides a thorough trial and finally in May, 1893, I commenced using the hydrocyanate of iron in one-half grain doses three times daily.

After I commenced its use the patient had but one attack which occurred on the next day after the iron was given. I kept up the treatment for three months and have heard from the patient since. He has never had an attack since and at present is in good health.

*Case II.*—Mrs. B., aged thirty-two years, married, has two children, youngest aged five. This patient came to me February, 1893, she gave a history of having epileptic attacks from childhood, which came on at irregular intervals, ranging from two to three in a single week to only one in two months. I commenced using the bromides but did not get very much effect from their use. Finally in May, 1893, I commenced using the hydrocyanate of iron in one-half grain doses three times daily. After the first month's treatment the attacks became less frequent so that in the four months thereafter she only had one attack. I kept up the treatment until December, 1893, gradually increasing the size of the dose after the first four months until the last month when I gave the patient only one-half grain of the preparation daily. This patient is in good health and has not had an attack since July, 1893. I have several cases under treatment now and they are all improving.—F. C. Wiser, M. D., in *The Journal of Materia Medica.*

## CLINICAL NOTES.

THERE is no doubt about the value of cactina pellets. In heart troubles, especially those of neuralgic character, weak heart, exhausted energies, some neurologies and nervous prostration, cactina pellets will prove curative.—Joseph C. Ellis, M. D.

I HAVE given Peacock's bromides a thorough trial, and have since then invariably prescribed it in preference to other preparations of its kind. During my trip across the ocean, I gave it to several passengers who suffered a great deal from seasickness, with very beneficial results.—J. Wilmoth, M. D.

WHILST I was in the army during the war I contracted rheumatism and neuralgia, and at intervals have suffered intensely since that time. I can truthfully state that tongaline is the only remedy that has made my life worth living, and I have never found any agent to relieve me as quickly and thorough as tongaline.—H. M. Ives, M. D., Parksville, New York.

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